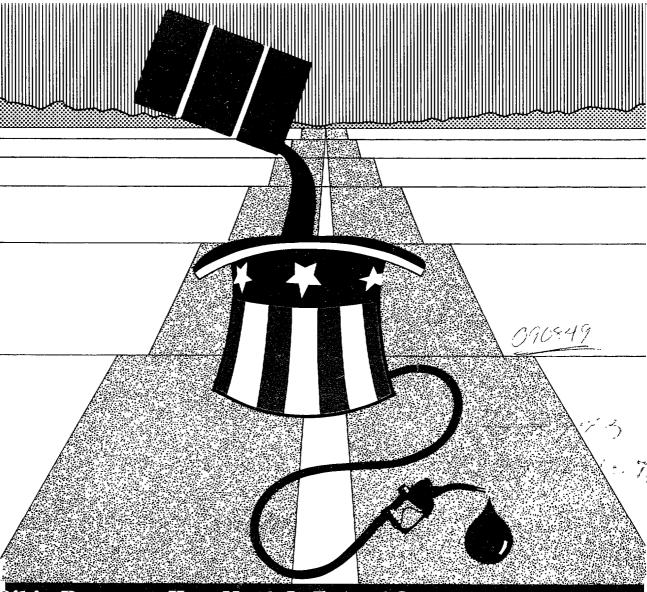
Summer 197



Dil in Reserve – How Much Is Enough?



722973 0**9**0849

From Our Briefcase

Sunrise/Sunset Legislation

Contrary to what this title may appear to indicate. Congress is not attempting to control the rising and setting of the sun. Instead, this legislation is designed to reform congressional oversight. H.R. 2 would force reconsideration of existing laws and programs; if not reviewed and reauthorized, the "sun would set" on such programs. H.R. 65 would require improved statements of legislative objectives and reporting requirements in legislation before the "sun would rise" on programs authorized. Both bills contain provisions to improve reporting of program results. Essentially, the two bills complement one another in that both are designed to improve congressional oversight to encourage better Federal program management and accountability and enhance congressional policy making.

In presenting May 23rd testimony before the Subcommittee on the Legislative Process of the House Committee on Rules, Mr. Staats outlined elements GAO believes are critical to a successful review and reauthorization process. He emphasized that a workable review process must be sufficiently disciplined to assure that necessary program information and analysis is developed and presented to the Congress, yet flexible enough to permit the Congress to focus its limited review resources where efforts are likely to be most productive. Mr. Staats also urged that clear statements of objectives and evaluation requirements be included in program legislation. Mr. Staats emphasized that it is critical that the legislation cover as many programs as possible; contain a review schedule or scheduling mechanism; and include a mechanism to allow the Congress to expand the coverage of the reauthorization process.

GAO also commented on the bills' requirements that GAO and the Congressional Budget Office prepare an inventory of Federal programs (H.R. 2) and that GAO compile a catalog of interrelated Federal GAO Review/Summer 1979



activities (H.R. 65). Mr. Staats noted a single inventory of Federal programs and activities would greatly assist the Congress in making oversight reform work smoothly and effectively. However, he suggested that the term "program" has many uses and that the most specific approach possible may be the one taken in H.R. 2, which would establish a review schedule using the budget subfunctions. A "program inventory" would be needed to determine which entities fall within each subfunction.

Mr. Staats noted that an inventory would not limit congressional committees' flexibility, but would give them a common reference point, a list of the entities which need to be covered. Mr. Staats also stated that GAO believes the inventory should be developed and maintained by one agency. Given GAO's efforts to develop a Federal programs inventory as part of our responsibilities under Title VIII of the 1974 Budget Control and Impoundment Act, he indicated that GAO would be the logical agency to fulfill this responsibility.

How would passage of oversight reform legislation affect GAO? Mr. Staats offered the following thoughts. A review schedule would provide a better basis to focus GAO's review and analytical efforts to coincide with congressional oversight timetables. Statements of legislative objectives for programs will provide better criteria for assessing how well programs work and whether alternate approaches offer greater promise. Periodic performance reporting requirements by the responsible executive agencies would reduce the costs GAO often incurs by having to develop this information.

The legislation could also increase the demand for other assis-

tance GAO provides committees, including:

- Identifying and developing standards, methods, guidelines, and procedures for reviewing and evaluating programs and activities.
- Developing statements of legislative objectives, oversight questions, evaluation criteria, and reporting requirements for use in proposed legislation, committee reports, letters, memoranda, and hearings.
- 3. Appraising agency review and evaluation reports.
- Identifying committee information needs and obtaining fiscal, budgetary, and program-related information available in the agencies to meet such needs.
- Identifying program areas for which committee oversight efforts would appear to be worthwhile.

The additional cost to GAO which would result from instituting congressional oversight reforms is uncertain but potentially significant. In large measure, these additional costs will depend upon the extent to which committees request the kind of help GAO can provide.

Undoubtedly, many of the provisions outlined in the two bills will change. In fact, GAO recommended that the Subcommittee seek ways to incorporate the best parts of both bills into a single package. The Program Analysis Division, which has responsibility for both Title VII and Title VIII of the Budget Act, will continue to stay on top of the issue and will provide updated information for this column.

Further Efforts To Combat Fraud and Improve Management

In keeping with his overall theme to make the Federal bureaucracy more efficient, President Carter created, in early May, two high-level groups—the Presidential Management Improvement Council and the Executive Group to Combat Fraud and Waste in Government.

The Executive Group is designed to assure effective implementation of the Inspector General Act of 1978 and other efforts to combat fraud and waste. It will be headed by the Deputy Attorney General, aided by the Deputy Director of the Office of Management and Budget (OMB) as Vice-Chair, the statutory Inspectors General, the Deputy Director of the Office of Personnel Management, the Special Council of the Merit Systems Protection Board. and representatives from the FBI, IRS, and Postal Inspection Service. OMB and the Department of Justice will provide staff.

Responsibilities of the Executive Group include: providing leadership and formulating policy and guidance to the Inspectors General and other executive branch officials who combat fraud and waste in government programs; promoting and coordinating allocation and direction of audit and investigative resources; studying and seeking to resolve those fraud and waste problems which are beyond the scope of individual executive departments or agencies; and developing recommendations for actions to reduce fraud and waste in the Federal Government. The President also instructed the Group to provide leadership to improve training for audit and investigative personnel.

The Presidential Management Improvement Council has somewhat less specific responsibilities, but is designed to support efforts to further the Government-wide management improvements envisioned in the Civil Service Reform Act of 1978. It is to be co-chaired by the Directors of OMB and the Office of Personnel Management, and its members will be drawn from Federal agencies and the private sector. The co-chairs' offices will provide staff.

The Council is charged with identifying and considering critical management problems. In addition, the President indicated he will ask the Council to periodically undertake specific management improvement projects.

Among those with whom the President expects the Council to cooperate is the Comptroller General. In fact, to emphasize GAO's willingness to cooperate with the Council, Comptroller General

Staats recently invited OPM Director, Dr. Alan Campbell, to discuss the act and its implications with GAO division directors and office heads

New Information Source

To prevent the proverbial reinvention of the wheel, evaluators are always on the lookout for information sources which concisely summarize existing data. It appears the upcoming Statistical Reference Index (SRI), a selective guide to current American statistical publications from sources other than the U.S. Government, will aid in this search.

The index will be published by the Congressional Information Service, Inc., (CIS) and is scheduled for publication in January 1980, SRI is expected to cover more than 2,500 titles issued by associations and institutes, corporations and commercial publishers, universities and independent research centers, State government agencies, and other significant sources of publications. Briefly annotated entries in the index will be keyed to descriptions of publications in an abstracts section. A number of separate indexes will allow the user to search by subject, name, category of data, and publication title.

This new service, which will be regularly updated, will complement a CIS information source already used by many GAO staff-the American Statistics Index. So if you will be looking for information on socio-economic trends, natural resources, business and finance, health, or any of a number of additional topics, stay tuned for a new

Improving Financial Management

Citing that, among other problems, millions of Federal dollars are overobligated, audit findings go unresolved, and millions in grant funds are not spent or returned to the Treasury, the Office of Management and Budget (OMB) recently unveiled a program to improve the Government's financial systems. The program, as outlined in a May 7 memo from the OMB Director to

Federal Department and Agency heads, is known as the Financial Priorities Program.

The nine areas selected for priority attention are all of interest to GAO. OMB repeated its commitment to encourage GAO approval of all accounting systems and cited the need to upgrade control systems to head off fraud, abuse, waste, and inefficiency. Some of the other areas deal with the need to improve the accuracy and timeliness of budget outlay estimates, and enhance grant accountability by fully implementing cost principles and standard administrative requirements.

The program, to be integrated with the budget process, was introduced in this year's spring budget reviews. OMB specifically noted its intention to enlist the help and cooperation of GAO in monitoring the progress of improvement action in each Federal agency. In fact, staff from the Financial and General Management Studies Division are already working with OMB staff to achieve this.

Accounting Principles Restated

The National Council on Governmental Accounting (NCGA) develops, promulgates, and interprets principles of accounting and financial reporting for governments in the United States and Canada. In recent years, NCGA has been involved in a project to update and clarify the principles of Governmental Accounting, Auditing, and Financial Reporting (GAAFR), published in 1968. This pronouncement was the primary authoritative statement on generally accepted accounting principles of State and local governments.

In March 1979 NCGA issued its latest authoritative publications. NCGA Statement 1 — Governmental Accounting and Financial R porting Principles - is a restatement of the principles of GAAFR with narrative explanations and financial statements illustrating their application. This statement highlights many important developments in improving governmental financial

management.

NCGA Statement 2-Grant Entitlement, and Shared Revenue Accounting and Reporting by State and Local Governments — supplements NCGA Statement 1 by enunciating the appropriate basis of accounting, fund identification and use, revenue recognition, and financial reporting for operating and capital grants.

The accounting principles in these two volumes constitute the minimum standards of financial reporting for State and local governments. As such, they are useful guides for independent audits of State and local government financial statements.

Help for the Manager

In an effort to share GAO's experiences in auditing accounting systems, and those of agencies and consultants in designing and operating them, GAO recently published Managers: Your Accounting System Can Do a Lot for You (Accountants, You Can Do a Lot for Your Managers). Hopefully, Federal program managers can draw on the information presented on problems and successes encountered by others as a means to avoid previously encountered problems and achieve or surpass the successes of others.

The discussions and case studies in the booklet highlight how an accounting system can get the right information to managers at the right time to trigger actions to assert control over resources and assure that agency operations conform to plans and to integrate financial and related quantitative information into decisionmaking.

After presenting information on the types of financial information managers need and how it can help managers better control public funds and resources and better achieve program goals, the booklet goes on to provide specific steps managers can take to foster effective accounting systems in their agencies.

While the booklet is designed to aid those who implement programs, it would also be helpful for those who evaluate them. Single copies may be obtained from GAO, Room 4522, 441 G St., N.W., Washington, D.C. 20548.

Sister Agency Also Reviews

Are you looking for a good monthly journal which deals with current topics? Search no further than the *Congressional Research Service Review*, published for Members of Congress, their staffs, congressional committees, and other offices of the legislative branch.

Recent issues have contained articles on tobacco subsidies, trucking deregulation, refugee admission to the United States, the changing American family, and Mexico's oil and gas resources. Authors are CRS staffers who have analyzed the various issues for the Congress. Editor A.A. Hoehling says they strive to make the CRS Review as timely as possible.

GAO's Division Directors each receive copies of the CRS publication, and multiple copies are sent to the GAO Technical Library. So if you want something to hold you until the next issue of this *Review*, check the Library for the CRS publication.

On Location

GAO Historical Collection

May 31 marked the official opening of the GAO Historical Collection housed in the form of a replica of a 1921 GAO office in Room 7038 of the GAO Building. Mrs. Virginia Morse cut the ribbon and Elmer B. Staats, Comptroller General, formally dedicated the collection to the late Ellsworth H. Morse, Jr., former Assistant Comptroller General of the United States.

Speakers Elmer Staats; Robert Keller, Deputy Comptroller General; and Milton Socolar, General Counsel, agreed that the collection could not have been assembled without the inspiration provided by Mr.

General's remarks is at the end of this article.

The dedication was attended not only by many GAO staff but by Mr. Morse's family and many former GAO officials and their spouses. Among them were former Assistant Comptroller General and Mrs. Frank Weitzel, former Assistant Comptroller General Tom Sullivan, former General Counsel Paul Dembling, former Director of the Office of Congressional Relations and Mrs. Smith Blair, former Director of the Logistics and Communications Division and Mrs. Fred Shafer, former Director of International Division



Mrs. Virginia Morse, with Comptroller General Elmer Staats, cutting the ribbon to the Historical Collection.

Morse, who had maintained an active interest in preserving GAO memorabilia. Mr. Staats noted that it was particularly appropriate that the collection be dedicated to Mr. Morse because of his lasting contributions not only to GAO but to improved financial management, accounting and auditing principles, and accounting standards and policies in general. Mr. Keller said that he has known no one who has had a better feel for the role of GAO or a greater allegiance to the organization. The full text of the Comptroller

and Mrs. Oye Stovall, and former Personnel Division specialist and former Editor of *The Watchdog* Carl Berger.

Special recognition was given to the members of the Committee for the GAO Historical Collection, particularly Earl Harris, Office of the Comptroller General, who pulled together many of the items in the collection, and Jo Clark, Office of the Assistant to the Comptroller General and Secretary to Mr. Morse for 25 years. Other members of the committee were Milton Socolar, Chairman, John Heller, Clerio Pin, Stewart McElyea, Susan Burns, and Kathy Wannisky. Paul Dembling, Mr. Socolar's predecessor, initially chaired the group.

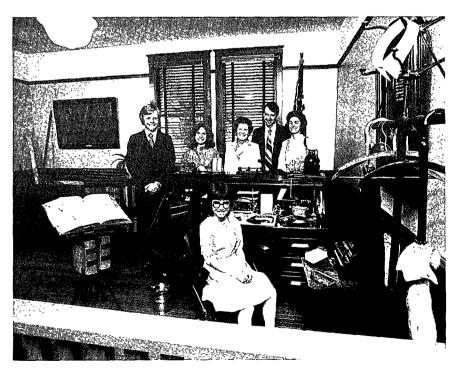
The contents of the collection span GAO's 57-year history. Among the items is the pen used by President Harry Truman when he signed the appropriation bill containing funds to construct the GAO Building, the silver trowel used in laying the cornerstone of the GAO Building, and an eyelet puncher for punching eyelets through papers, through which red tape was drawn to tie them together. Thus the term "tied up in Government red tape" was coined. Other interesting items in the collection include two wooden roll top desks used in the Pension Building when GAO was housed there, a green eyeshade (of course!), a 1921 flag which belonged to Mr. Morse, and a job description sheet of Ms. Olive Campbell, who worked for GAO for over 30 years and retired in 1951. She sent it in via her nephew, Gene Birkie, now in GAO's Community and Economic Development Division. These items represent only a fraction of the collection, which has to be seen to be fully appreciated.

So as not to lose much of the knowledge that committee members acquired as they accumulated the collection some of them have agreed to write an article about the collection for a later issue of *The GAO Review*.

Should you have any GAO memorabilia you wish to donate to the collection, please contact Earl Harris in the Office of the Comptroller General. He is particularly seeking two upright (candlestick) telephones, two mannequins, and some 1921 clothes.



Dedication of the GAO Historical Collection. From left, Comptroller General Elmer Staats, Milton Socolar, Chairman of the Historical Collection Committee, Jo Clark and Earl Harris, who also served on the Committee, and Virginia Morse, wife of the late Ellsworth Morse, to whom the collection was dedicated.



Pictured in the GAO Historical Room are (from left) Bruce Neuhart, Jeanne Morse, Virginia Morse, Don and Ellen Morse Yokel, and their daughter, Bonnie.

Remarks by Elmer B. Staats at the Dedication of the General Accounting Office Historical Collection

It is fitting that this exhibition of remembrances from GAO's past be dedicated to the memory of Ellsworth H. Morse. It is fitting for two reasons:

First, there are the lasting professional contributions Mose Morse made throughout a 30-year career with GAOcontributions toward the betterment of financial management, toward the establishment of sound accounting principles and standards, and toward the establishment of sound auditing and reporting standards and policies. He loved the GAO and was completely dedicated to its mission. During his career, Ellsworth Morse was consistently recognized by three Comptrollers General for his outstanding work. In his position as Director of the Office of Policy and Program Planning and later as Assistant Comptroller General, he assisted greatly in helping to bring about changes in the work and the role of the General Accounting Officechanges which most now take for granted. He was an avid student of GAO's early beginnings and its historical development. His knowledge of the early history of the GAO was invaluable in planning the celebration of our 50th Anniversary in 1971.

Second, it is fitting that the GAO Historical Collection be dedicated to the memory of Mose Morse because it was his very love of the GAO and his interest in GAO's history and the memorabilia associated with that history which provided the inspiration for the creation of the permanent exhibit housed here.

This plaque will hang at the entrance to the room. It reads: "General Accounting Office Historical Collection, Dedicated to the memory of Ellsworth H. Morse, Jr., Assistant Comptroller General, 1972-1977, whose interest in preserving memorabilia related to the General Accounting Office provided the inspiration for this permanent exhibition."

Before the Cameras

Many GAO staff tuned to CBS' "60 Minutes" on April 8th when the

program featured GAO and its work. To better explain to the general public not only what but how GAO does its work, the CBS crew centered their presentation around a typical assignment—in this case the review of the summer youth employment program funded under the Comprehensive Employment and Training Act (CETA).

The "60 Minutes" crew sat in on team meetings and accompanied regional office staff to job sites. They filmed as GAO staff interviewed CETA staff and talked to some of the youth who were employed under the program.

Just as GAO staff traditionally do, the "60 Minutes" staff came to Washington to finish their project. In the true spirit of good evaluation, the crew not only spoke to GAO folks in Washington, but also interviewed officials at the Department of Labor, which administers the CETA program, and filmed CETA testimony before a Senate Committee.

Staff from the New York, Boston, Chicago, and Los Angeles regions worked with the Human Resources Division on the CETA assignment. Some of those involved have agreed to do an article for the Fall 1979 issue of the *Review*, letting the rest of us know what it is like to be followed by the camera's watchful eye. Stay tuned!





Mr. Staats with Dan Rather of the "60 Minutes" staff.

Federal Agency Evaluators Visit GAO

On March 22, 1979, the General Accounting Office hosted the fifth meeting of the directors of evaluation from the various Federal agencies. Members of this group have found it beneficial to meet in an informal environment where they can discuss their activities and profit from a free-flowing give-and-take atmosphere.

The general format of these meetings has been for the host agency to discuss its efforts in evaluation, have one other speaker, and then open the discussion to questions and statements from participants. Previous meetings have been held at National Science Foundation, Department of the Interior, and the Department of Justice. While there is no official structure for the group, GAO has taken the lead in its creation and coordination through the participation of Wallace M. Cohen, Assistant Director in PAD, as meeting facilitator and executive secretary for the group.

The agenda for the GAO meeting addressed three lively topics:

- Perspectives on Evaluation
 — Comptroller General

 Staats
- GAO's Program Evaluation Issue Area—PAD Associate Director, Keith Marvin
- Update on OMB's Circular on Evaluation—Deputy Assistant Director for Evaluation, OMB—Seymour Greenstone

Following are excerpts of the comments by the speakers and participants.

Comptroller General Staats:

Although progress in program evaluation may often appear slow, the distance it has come is great, and its beginnings are not that old. A systematic approach to program evaluation dates back to the PPBS system and was developed at the urging of President Johnson. There really has been substantial progress, especially since the Legislative Reorganization Act of 1970, but there are still



Comptroller General Staats with PAD staff and Federal agency evaluators.

some major problems. We lack an overall approach to the evaluation of program results and performance. One area of weakness is the lack of a good incentive system; another problem is that we don't know how to structure a program evaluation effort when given the overall goals and structure of an organization. We know that much evaluation technology and methodology is available, but all too often in the implementation we fall short of the quality that could be achieved.

I am very pleased to see that this group has been formed. It is a logical, almost expected, element consistent with the overall development of the Federal program evaluation effort. This group can be an important link in the improvement of program evaluation. The experiences that you sharethe successes and the lessthan-successes-will help you to accumulate knowledge of the evaluation process that would otherwise be limited to your agency. This sharing of experience is especially important because evaluation is such an imperfect art; there may be no single best approach to an evaluation problem, but your collective judgment and experience may often point to a promising path.

Our GAO evaluation efforts go back about 10 years when we were asked to evaluate the entire poverty program. Shortly after that, the 1970 Legislative Reorganization Act specified that GAO should study the costs and benefits of government programs. There was no doubt that this was a Congressional request for program evaluation, and in the 1974 Congressional request for program evaluation, and in the 1974 Congressional Budget Act Congress formally began to refer to the term "program evaluation." Since then, we have been receiving an increasing number of mandates for ad hoc program evaluations. Currently about 50 percent of our work is program evaluation, 40 percent consists of economy and efficiency studies, and 10 percent is financial management work.

Comments:

Mr. Turner of AID commented that in his organization the Auditor General has the responsibility and right to examine all programs, organizational entities, and activities. This has been interpreted by the Auditor General to include program evaluation. Mr. Turner questioned whether GAO is in a position to determine which organizations should be performing program evaluation within the agencies. Mr. Staats responded that GAO does not tell the agencies how to organize to perform their functions: GAO's responsibility is to set the standards to be followed. Mr. Myers, Deputy Director PAD, added that the keys to effective evaluation are a commitment to getting the job done and providing a mix of talent and resources, and not the particular organizational location of the evaluation function.

Mr. Marvin:

GAO performs three major kinds of evaluation work. Evaluation studies, assessing effectiveness of evaluation activities, and assessing individual evaluations. Often it's difficult to comprehend the size of the Federal evaulation effort; estimates of expenditures range from \$300-500 million annually. We need to be particularly concerned about the validity of information that will affect decisionmaking. PAD's workdevelopment and demonstration of evaluation methods and guidelines—has become an important area of research and is now one of GAO's 34 issue areas. As an issue area it is unusual in that most issue areas are subject oriented while this is function oriented. An important component of our activity has been the issuance of guidelines for methodology and for evaulation management and policy.

Mr. Greenstone:

I am now on the management side of OMB; in my earlier experience in that organization I worked on the budget side. I realize now the power wielded by the budget staff because they control the money. That power simply doesn't exist on the management side. Our initiatives have to be sold. Fortu-

nately this administration is management-minded and is supporting a number of initiatives that can lead to better management. Civil service reform offers, for the first time in years, the opportunity for agencies to try demonstrations and experiments to develop initiatives.

At OMB we have decided not to try to prescribe methodology for evaluation and not to be a clearinghouse, but to try to be supportive. If agency evaluation efforts are to be successful, then the evaluator should be performing tasks that the agency head recognizes as important and needed.

In the recently issued Circular 117, Management Improvement and the Use of Evaluation in the Executive Branch, you will find agreement with all the points that GAO has previously made except for GAO's idea of specifying and quantifying objectives. We shall be encouraging the agencies to implement programmatic initiatives that can make better use of analytical staffs and we shall be working closely with both the Office of Personnel Management and the Department of Justice in

the areas of management improvement programs and combating fraud and waste.

Comments:

Mr. Havens, in commenting on Mr. Greenstone's statement noted that in 1972, Mr. Staats told Congress that we should be more specific with regard to legislative objectives and quantify them when possible. Now, he said, GAO recognizes that Congress simply can not express detailed objectives in the legislation. Congress, however, can articulate sets of questions in hearings that imply objectives. Furthermore, the types of questions posed can be responsive to the evaluability assessment concept that has been developed by Wholey and Scanlon.

Championship Kickoff

Each year the Interagency Savings Bond Campaign is aided by an outstanding American. However, it is not every year that the honorary chair is a Champ. GAO Representative Lola Brandy, Employee and Labor Relations Staff, was obviously delighted to receive encouragement from Heavyweight Champion Muhammad Ali.



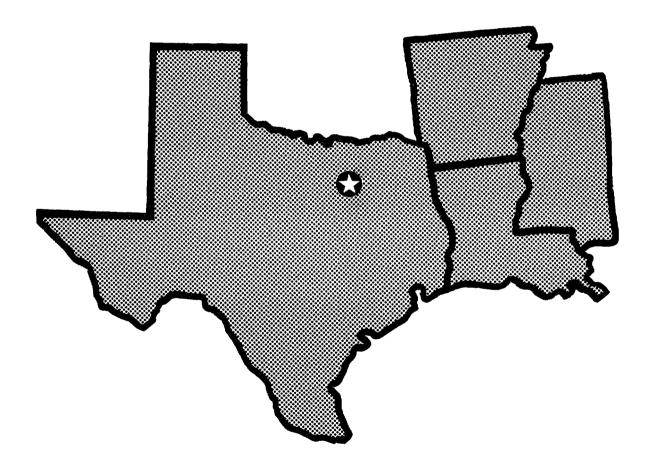
From left to right: Muhammad Ali, Honorary Chairman; Ray Marshall, Chairman, Interagency Savings Bonds Committee (Secretary of Labor); Azie Taylor Morton, Treasurer of the United States; and Lola Brandy, GAO Representative.

122974

The Dallas Region

The (Federal) Eyes of Texas and Ark-La-Ms

This article was authored by Bob Calbridge with a big assist on the New Orleans portion from Ernie Candilora. Dianna Taylor, the DARO editor, provided a lot of polishing on this little jewel which had truly been a diamond in the rough. All were prodded and abetted by Jim Jodon, the *Review* liaison person.



This is the fourth in a series of articles on GAO's regional offices.

A Dallas office of GAO has been keeping an eye on the Government's financial interests in the South Central area since 1942. Once headquarters of the "South Central Zone," the Dallas field office exercised its congressional muscles over a territory of 761,000 square miles, or one-fourth of the continental United States. Today, the Dallas region covers nearly 400,000 square miles of territory in four States—Texas, Arkansas, Louisiana, and Mississippi.

This territory has a longer re-corded history than is generally realized. The Indian era extends from the earliest archaeological evidences of man to the arrival of the Spaniards along the coastal shores in 1519, followed by early exploration and missionary endeavors. Spanish settlements started appearing in what is now Arkansas. Louisiana, Mississippi, and the interior of Texas in the early 1540's. From 1682 to 1686 the French claimed much of the territory, some of which was later reclaimed by Spain or claimed by Britain. In 1800 France regained the territory which was to be sold to the United States in the "Louisiana Purchase" of 1803.

The renowned six flags flown over Texas included Spain (1519), France (1685), Mexico (1821), the Republic of Texas (1836), the United States of America (1845), and the Confederate States of America (1861). The flag of the United States again flew with the cessation of hostilities of the War Between the States in 1865.

If we could use only one adjective to describe today's Dallas region, that adjective would have to be "diverse." We live in the fast-paced. commercial centers of Dallas and Houston, in the charming old-South atmosphere of New Orleans, and in the lovely city of Spanish missions. San Antonio. We work in such diverse geographical areas as the high, dry plains of West Texas and the sea-level port of Pascagoula, Mississippi; in the pinecovered hills of Arkansas and along 1.000 miles of the Mexican border. The home cities and audit sites of the Dallas region are as varied as can be found in the country. The area down to a line drawn through San Antonio, Texas, and New Orleans, Louisiana, was recently designated as "The Mild Belt," and the area south of San Antonio retains the title "The Sun Belt." Both belts are winter favorites of the Yankee "snowbirds."

This diversity does not mean that we are "different" from other parts of the Nation or the other GAO regions. Rather, it means that we can match most of the "unique" features of all the other regions and still have a few left over for ourselves.

The locations of the regional office and its 3 sublocations repre-

sent 4 of the country's most populous cities, yet we are the third least densely populated region, behind Seattle and Denver.

Like the other regions, we have our share of sports heroes. The Dallas Cowboys, the Houston Oilers, and the New Orleans Saints draw the fall crowds to their respective domed stadiums. Ours is the only region with three domed stadiums, including the Nation's first air-conditioned football/baseball stadium, Houston's "Astrodome." The revolutionary artificial turf was developed for the Astrodome.

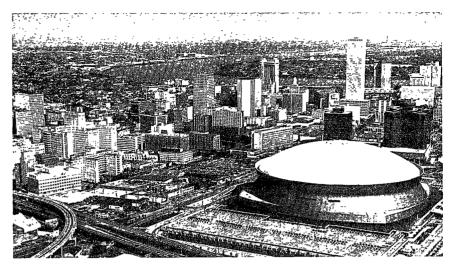
We also offer professional baseball, basketball, soccer, and hockey. Some of the world's greatest PGA golf courses entice our staff to



First of the domed stadiums, Houston's "Astrodome," home of the Oilers and Astros.



Texas Stadium, home of the Dallas Cowboys. Dallas skyline appears in the background.



New Orlean's Superdome at the edge of downtown and the "Crescent Bend" of the Mississippi River.

watch and play, and tennis, both professional and amateur, is enioved everywhere.

For those of us who are college sports fans, the Southwest and Southeast Conferences' schedules of college football, baseball, basketball, etc., keep many of us busy all year. We especially look forward to enjoying three of the biggest and the best "Bowl" games: the Cotton Bowl Classic in Dallas, the New Year's day Sugar Bowl game in New Orleans, and the Astro-Bluebonnet Bowl game in Houston.

We might lack the snow-skiing facilities of some other regions, but we make up for it with water skiing on the many lakes and bays and with sand skiing (yes, sand skiing) on the dunes of West Texas. We also have a brand new outdoor artificial-surface ski slope in Houston to keep everyone, from the novice to the pro, in practice between their frequent trips to New Mexico and Colorado.

Year-round relaxing and camping are never far away. Forests cover most of our region from East Texas to the Alabama border. Beautiful lakes, rivers, and the shoreline of the Gulf of Mexico, which twists and turns for nearly 12,000 miles, are close by.

Do you like:

- Hunting? All popular game animals are available within the region.
- Fishing? You can't find a larger variety of game and table fish than in our rivers and streams, our lakes and bays,

- and, of course, in the Gulf of Mexico.
- Sightseeing? Need some places to show your visitors? Like to go looking around yourself? You thought that trip up to the revolving restaurant on Seattle's "Space Needle" was great? Only we can offer you your choice of two towers, San Antonio's "Tower of the Americas" or Dallas' "Reunion Tower."

While we live and do much of our work within "local travel" distance of our four office locations, most of our staff will tell you that there's a lot of "TDY travel" to a lot of "interesting" and "not-so-interesting" sites.

"Local travel" around Dallas and Fort Worth (as with most regional offices) means working with the area and regional offices of most of the executive agencies, as well as civilian and defense contractors.

"TDY travel" means going to

- the tropical shores of the Gulf of Mexico to take a look at the activities at Corpus Christi Naval Air Station;
- central Texas and the Army's Fort Hood, over 300 square miles of sand and mud;
- Dalhart, in the northwest corner of the Texas Panhandle (this spot is usually saved for July and January assignments);
- Mentone, county seat (population 50) of Loving County (population 114), smallest

- population of Texas' 254 counties; or, we hope,
- one of the region's sublocations.

All of our region's cities are endowed with the same educational and cultural facilities offered in other cities throughout the country. While our many institutions of higher learning may be best known for their accomplishments on the gridiron, their academic achievements are highly respected throughout the world.

We admit that we do not have New York's "Metropolitans" (Opera and Museum of Art), but we do have Dallas' "Longhorn Ballroom" and Corpus Christi's "Don the Beach-combers" studio of the tatooing art. Seriously, the region's cities' orchestras, opera companies, theater groups, and museums of art and sciences are among the best in the Nation, and if we can't go to the "Met," the "Met" comes to us, every year. San Antonio's zoo is third largest in the Nation.

Now, sit back and relax. Let Texas live up to its reputation—and brag.

Dallas

Back in 1841, when it all began, Dallas had nothing which would have marked it as a city of destiny. It had no abundance of natural resources, just a wide-open prairie at a low spot on the Trinity River, a river which offered little more than an obstacle to the general move westward.

Why did John Neely Bryan choose to set up his trading post here? Why did he call the settlement which followed "Dallas"? No one really knows. The city and the county (which was established in 1846, after Texas joined the Union) were officially named after George Mifflin Dallas, then Vice President of the United States under James K. Polk.

What made Dallas different? Its people! Its early inhabitants and their successors passed down a "can do" spirit from generation to generation so that in a span of less than 140 years, with a lot of imagination and aggressive leadership, the frontier town started by one man in a log cabin near the shores of a low-level stream has grown to

be the seventh largest city in the country. It is the largest without a water route to the sea, but who needs one? The air is our ocean, the country's largest airport our port, and aviation the wave of the future. The Dallas/Fort Worth Airport, larger than Manhattan Island, enplaned 10 million passengers last year.

Dallas, a cosmopolis rising out of the prairie, is a center for national businesses (1,060 area-based companies with assets of \$1 million or more), banking (two Dallas banks are larger than any others in Texas and 41 other States), national and world trade (the Market Center has the largest display area in the United States, and consuls and trade commissions in Dallas officially represent 33 countries), conventions (more conventions are held in Dallas than in any other city in the country), computers, communications, culture, and education.

The Dallas-Fort Worth "Metroplex"

We cannot talk about Dallas by itself. It does not exist or function alone. It is but one of the parts of a vibrant, growing group of cities in 11 counties surrounding Dallas and Fort Worth, known as the Metroplex. Our staff members are well scattered among the 3 million people who live in this 8,360 square-mile area.

To all who come on business, we also offer much pleasure. The world's largest State Fair draws over 3 million visitors during 2 weeks in October. In January, 650,000 people attended Fort Worth's annual "Southwest Exposition and Fat Stock Show" and rodeo. The Metroplex contains the country's leading theme amusement park, Six Flags Over Texas; Texas Stadium, home of the Dallas Cowboys; the Texas Rangers' Arlington Stadium; the Cotton Bowl, host to the annual New Year's Day event and other regular encounters; and numerous recreational lakes just a short drive from here in almost any direction.

The people of the Metroplex also enjoy many other advantages:

- Lowest cost of living among the 10 most populous areas.
- Lower property taxes than



DALLAS SKYLINE By Morn's Early Light



At Sunset

most large metropolitan centers.

- No State or local personal or corporate income tax.
- Moderate climate (mean temperature, 65° F; records, -8° and +112° F; humidity, 55 percent; rainfall, 36 inches; snowfall—annual 3 inches, record 12 inches, accumulation, 1 inch.¹)

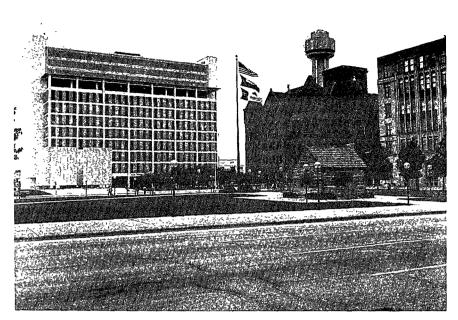
But we have to admit that when a

"Blue Norther" blows in, it can freeze the (bleepity bleep bleep bleep bleep bleep. As the old-timers say, "There ain't nothin' between us and the Canadian border but a barbwire fence—and that blew down 30 years ago."

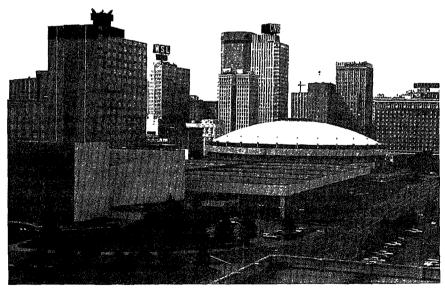
Houston

Headquarters for many of the country's leading petroleum, petrochemical, and petroleum-related

GAO Review/Summer 1979



County Court House Plaza, the old and new, downtown. John Neely Bryan cabin, Dallas' first building and first courthouse (1841) stands in view of the newest addition to its already impressive skyline, Reunion Tower (1978). Behind the John F. Kennedy Memorial (left foreground) is the present county courthouse (1968) and behind the cabin the "old" county courthouse (circa 1890).



"Gateway to the West," Fort Worth. A far cry from the old "Cowtown" of the past.

companies, Houston was certainly a logical choice for locating a GAO energy office. Too, Houston is strategically located in the Department of Energy's Region VI, where approximately 72 percent of the Nation's crude oil and 88 percent of its natural gas are produced. In addition, this area produces 50 percent of the Nation's uranium and has 45 percent of its petroleum refining capacity. Further, Energy's Region VI has 16 of the country's 35 GAO Review/Summer 1979

largest oil companies, 56 of its 111 small refineries, 615 of the country's 763 gas processing plants, and 10,686 of its 15,299 crude-oil producers.

That requires a lot of "watchdogging."

The city of Houston stands on a relatively level plain 49 feet above sea level, with many lakes, bayous, and canals for artificial drainage. Its population of 1.3 million makes it the fifth largest city in the country.

Houston is the Nation's third largest seaport (second in total tonnage), although it is actually 50 miles from the Gulf of Mexico. The area leads the world in manufacture of petroleum equipment, agricultural chemicals, fertilizers, and pesticides and in oil and gas pipeline transmission.

Houston was founded in August 1836 by brothers J.K. and A.C. Allen, and named for General Sam Houston, first president of the Republic of Texas and commander of the Texas army which won independence from Mexico at the Battle of San Jacinto, fought not far from what is now Houston in April of that year. The Allen boys paid \$9,240 (\$1.40 per acre) for 6,600 acres of land near the headwaters of Buffalo Bayou. That acreage is located in what is now the western part of the city of 325,000 acres, which has been assessed at \$10 billion.

The discovery of oil at "Spindletop" in southeast Texas in 1901 and the opening of the manmade Houston Ship Channel in 1914 stimulated rapid development of petroleum refining and metal fabricating in the Houston area. Petrochemical manufacturing on a large scale began during World War II.



This view of the skyline shows off Houston's skyscrapers, many of which belong to petroleum companies.

Houston's prosperity has been aided, too, by the area's extraordinary supply of minerals, timber, industrial soil, and sea and fresh water. Oil and gas furnish hydrocarbon compounds for refineries and chemical-petrochemical industries. Forest products from all of east Texas support lumbering, plywood production, furniture fabrication, and paper milling. The metals and minerals produced in the area are too numerous to mention here, but it's easy to see why Houston has grown into the industrial giant it is today.

DARO Goes into Space

In the early 1960's, Houston also became the center for manned spacecraft activities in the United States. Johnson Space Center (JSC), a \$202 million complex, occupies a 1,640-acre site about 25 miles southeast of downtown Houston. JSC develops the technology required for the operation of manned spacecraft; manages industrial efforts in the design, development, and fabrication of spacecraft; selects and trains astronauts for NASA space flights; and manages the medical, scientific, and engineering experiments conducted during the flights. Since the program's inception, there has been a Dallas region staff behind every space success saying, "It should have been done for less." Perhaps best known among our staff's recent reviews at JSC was that on the Space Transportation System, popularly known as the "space shuttle," designed to replace essentially all expendable launch vehicles. On these reviews we were ably aided and abetted by the Atlanta and Los Angeles regional offices.



John Reese and "Gus" Lucio check out a NASA space docking simulator at Johnson Space Center, Houston.



DARO staff (off camera) observe Mission Control in action at Lyndon B. Johnson Space Center, NASA, during tense moments as spacecraft returns to earth.

14

New Orleans

The New Orleans suboffice, which was a regional office from 1951 until 1970, is located in one of the country's most interesting cities. An afternoon spent in the cafes and shops, the narrow streets, and among the Old World architecture is like a trip to Europe.

Founded in 1718 by Jean Baptiste Le Moyne, Sieur de Bienville, New Orleans became the capitol of French Louisiana in 1723. The Spanish succeeded the French some 40 years later, and New Orleans became an American city with the Louisiana Purchase in 1803.

New Orleans offers a wide variety of activities for the whole family. Where else can you ride a streetcar through the Garden District, a paddlewheel steamboat or ferryboat on the Mississippi River, and a horsedrawn carriage through the French Quarter, all on the same day?

A walk through the Quarter is a living history lesson, with land-marks such as St. Louis Cathedral, the oldest active cathedral in the United States, and the Cabildo, where the Louisiana Purchase was signed.

Like fishing? Our Louisiana-Mississippi Gulf waters offer some of the finest game and table fish in the world: blue marlin, sailfish, tuna, pompano, and red snapper, to cite only a few. Inland, you can fish in such fresh water areas as Toledo Bend (on the Texas-Louisiana border), a vast manmade lake famous for its large mouth bass.

Like parades? You can't beat our Mardi Gras—the greatest free show on earth. In the 2 weeks preceding Mardi Gras (Fat Tuesday), 50 parades roll through the streets before hundreds of thousands of spectators. Then comes Mardi Gras, when over a million revelers crowd the streets for a last celebration before the beginning of Lent.

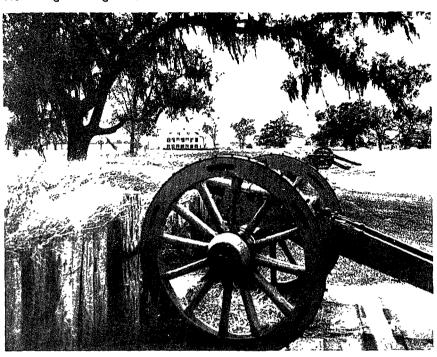
Enjoy international cuisine? It's all here—everything from red beans and rice at a corner cafe to redfish courtboullion at a magnificient mansion. As one happy diner put it, "A meal in New Orleans is not just satisfying a bodily necessity—it is an event."

The New Orleans suboffice, just a few blocks from downtown and the magnificent Louisiana Superdome, is located an average of only

7 miles from the staffs' homes. When their work takes them away from home, the staff works at such sites as an Air Force base at Biloxi and the shipyards at Pascagoula. They travel to historic Jackson and Vicksburg through some of the

most beautiful country in the South.

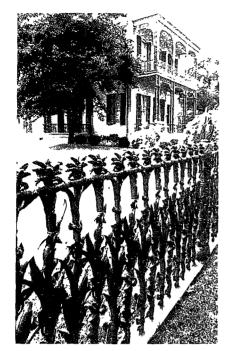
Needless to say, our New Orleans staff thinks their city is a great place to live. But then all our office staffs think the same thing about their cities.



Beauregard Plantation at Chalmette Battlefield (War of 1812). The infamous "dueling oaks," scene of many famous duels near New Orleans.



View of 18th century Merieult House courtyard in New Orleans, as seen from the apartment where playwright Tennessee Williams wrote during the 1930's.



Famous 18th century Cornstalk Fence Hotel, French Quarter, New Orleans.

San Antonio

The lovely Spanish-influenced city of San Antonio sprawls over an area of 700 square miles, completely surrounding several small, independent cities. San Antonio has one of the largest military and retired military populations in the world; within its borders or within the county are Fort Sam Houston, Brooke Army Medical Center, and Randolph, Kelly, Lackland, and Brooks Air Force Bases. Obviously. the military activity alone can keep GAO hopping, and it does. At nearly all times, teams of Dallasbased staff are working somewhere in San Antonio-one of their favorite TDY locations which, though 300 miles from home, has extremely convenient air connections with Dallas. The suboffice staff thinks San Antonio is great too, so everyone agrees-it's a wonderful place to visit and a wonderful place to live.

Like New Orleans, San Antonio is listed as one of America's four unique cities. The area is a blend of many cultures. The Mexican and Spanish influences are most apparent, but there is evidence, too of San Antonio's German and Irish forebears. Much of the city's charm is in the living contrast between



Diners at San Antonio's revolving restaurant atop the Tower of the Americas get a good view of the convention center and the beautiful Paseo del Rio San Antonio.

past and present. Reminders of the past, such as the Alamo, its four sister missions, the Spanish Governor's Palace, and La Villita ("little village" which once housed early settlers) illustrate a cultural heritage of more than 250 years.

San Antonio's many outdoor activities can be enjoyed year-round, since the annual average temperature is 68.7 degrees. The nearby "hill country," with its beautiful lakes and rivers, offers camping, hunting, fishing, sailing, skin diving, and water skiing. If you enjoy walking, San Antonio offers the beautiful Paseo del Rio, the River Walk, which borders the horseshoe bend of the San Antonio River 26 feet below the streets of the downtown district.

The Paseo del Rio is the heart and soul of San Antonio. Here, you can board a "river taxi" and travel through the area's mixture of sights and sounds—from the new Convention Center to the swinging night-clubs. Within short walking distance of the River Walk are Hemis-Fair Plaza with its 750-foot Tower of the Americas and the Institute of Texan Cultures, which houses exhibits detailing contributions of the 26 cultural groups that settled Texas. Or, you can visit one of the many sidewalk cafes which offer

every food fare imaginable.

Many of the staff live in the green roling hills in the northern part of the city.

Imports and Exports

The Dallas region has always depended on large numbers of imports to sustain its high level of production. Of the present staff, professional and administrative, Texas-based and Louisiana-based, 60 percent are not native to the States they are working in. Of the 177 people on board, 107 list as their birth places 28 States other than Texas or Louisiana (as appropriate) and 4 foreign countries. We haven't been able to figure out what it means, but, although there are 10 people from Louisiana working in Texas, there are no Texans working in Louisiana.

The Dallas region has also strongly supported other regions, overseas sites, and Washington headquarters by exporting to them many of our best trained personnel to assume positions of everincreasing importance and responsibility.

We have held the enviable position of training and grooming great numbers of extraordinarily capable personnel for export to other Fed-

GAO Review/Summer 1979

formed the nucleus of audit and investigative groups with Health, Education, and Welfare, Depart-

eral agencies. These people have ment of Energy, Housing and Urban Development, and others. Many now hold key positions in each of their agencies. For example, with but one exception, all the branch offices carrying out HEW's audits in Federal Region VI are headed by DARO-trained personnel.

Our Thinkers Our Doers



Regional Manager, Irwin D'Addario (nearest flag) discusses policy with the three headquarters ARMs (left to right) Fred Lyons, Paul deLassus, and Jim Jodon.



Our editor Dianna Taylor (second from left) stands among secretaries (left to right) Barbara Davis, Patti Boyles, Anne Marie Redding, and Verla Dobbs (seated).



Administrative Officer Dorsey Wren (seated, center) talks it over with two members of the administrative staff, Dinah Gremard (seated) and Kitty Vanlandingham.



This motley crew attending "flexitime" discussion asked they not be identified. GAO Review/Summer 1979

Ramblings

When we got the word on writing this article, we tossed around some approaches as to how best to get input from Dallas staff, past and present. What we wound up with was a series of get-togethers at which we just talked. Memories flowed. One story jogged another's memory, and so on. We taped these sessions, and, with minor editing (we left out questions), these are some of the "ramblings" which we recorded.

From one of our earliest investigators: "Back when this was the South Central Zone, per diem was \$5 for the first 30 days in one location, \$4 for the next, \$3 'til the 90th day, and nothing thereafter. My salary was \$2,000 a year. I remember when my first child was born in D.C. I stayed until she was 2 weeks old, left for Texas, and didn't see her again until she was 10 months old."

After general agreement that "things were rough" in the "Old Days," someone recalled, "Hey, remember ole Whatsis Name?" "The original 'economy and efficiency' expert?" "Right! The one who rolled his own 12-packs-for-98-cents Bugler cigarettes, and split his free book matches in half so he could get two lights from each match."

"Remember when he came into the office in a 'new' suit? The Regional Manager commented on the improvement." "Uh, uh. He told Batch that he'd bought the whole outfit, shoes and all, for \$10 over at the mission store." "Hey, he had some 'economy' tricks we could use today, like turning off his car's engine on downgrades and taking all curves on the inside to save tires over the shorter distance."

"Speaking of New Orleans (as we had been), it's getting about time for our annual crawfish boil. Any of you Yankees ever eat crawfish, cooked Cajun style?" "Yuk, poohee, yuk, yuk!" (Translation: Yankees voicing their opinions about crawfish.) "No. I mean it. We have one every year. If you haven't eaten those little 'mud bugs,' boiled in hot Cajun seasoning, you're missing one of the truly great taste treats. Y'all can have your Christmas parties and picnics, we have those too, but give me a good old crawfish boil every time.

"How about some of the times we had at Fort Hood? I'll bet you if I audited that monster once, I audited it a thousand times." "Why not? It's the biggest (bleeped) Army base in the whole (free) world. Remember the time Ernie Frosch was dumped off that trailer he was inspecting into a mud hole?" "That was a sight. Too bad we don't have a picture of it. It would sure dress up this article." "Yeah, but you can't have everything." "But you can sure enough picture him, mud from head to toe. Soaked clear through, water sloshing around in his hernia bag and workpapers a pure mess." "Hey! Remember them back at the office? Hanging the muddy workpapers on a line to dry?"

"You know somethin' worth writing about?" "Yeah? Go ahead." "Some of the language problems

we run into. You know, I'm one of the 'imported' majority in this region, and some of your names and words sure had me goin' for a while." "Give us a f'rinstance."

"OK. How about 'Mexia, Texas'?"
"How about it? Everybody knows that's pronounced 'Me-hay-uh'."
"You know it, and I know it, now, but who in the (bleep) else knows it? I swear, if I lived there, I'd move, so I wouldn't have to explain it to people."

"Then there's Bexar." "Sure, that's Bear County. Where Santone is."

In the interest of brevity, the editors have summarized the discussion that continued long into the evening over a few "long necks" and herein list a few of the more controversial words brought up. (No special order.)

Pronounced	Means
Naka-dish	Natchitoches (Louisiana)
Santone	San Antonio, Bexar County (Texas)
A-bear	Hebert (Common proper name)
long necks	Tall beer bottles (particularly Lone Star and Pearl)
fixintuh	About to start
Nacogdoches	Nacogdoches (Texas)

On this note we close with another oft-repeated, but truly heart-felt phrase—"Y'all come see us, y'heah!"

Photos courtesy of the various cities chambers of commerce or tourist and convention bureaus or unnamed DARO phantom Photographers

¹ One staffer remarked that in 6 years in Denver [average annual accumulation 5 feet] he had never missed a day of work because of weather. In his first year in Dallas, he missed 4 days because of

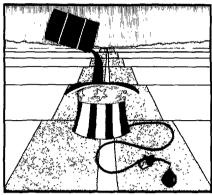
722975



D. Lamar White

Mr White, a supervisory management analyst, came to the Program Analysis Division in 1974 from the International Division's European Branch. He joined GAO in October 1968 at the Seattle regional office. He graduated from the University of Oregon and holds a B.A and an M B A. in economics

Oil in Reserve – How Much Is Enough?



On October 17, 1973, Arab countries unexpectedly cut off oil shipments to the United States because of our support of Israel in the Yom Kippur war. Even though this was the fourth politically motivated embargo in 25 years, this was the first time Americans felt the effects of a petroleum shortage. Unlike during the other import interrruptions, domestic oil production could not increase to compensate for the loss. The oil shortfall reached as high as 2.2 million barrels a day before the embargo ended in March of 1974.

The visible results for the American consumer were long lines and much higher prices at the gas stations. A less visible result was that the performance of the economy, as measured by GNP, was down by 3 percent from the level expected for all of 1974. Economic damage was caused by both the Arab embargo and the concurrent fourfold increase in prices. Whether the shock of the unprecedented price increase or the lack of oil caused more of the downturn has not been established, but the combination was severe.

To help prevent future economic upheaval from another oil import shortage, Congress authorized a Strategic Petroleum Reserve (SPR) in the Energy Policy and Conservation Act of December 1975. An SPR would allow the Federal Government to pump oil from large storage areas to replace oil interrupted in an emergency. The act sanctioned other official actions to handle im-

port shortages including mandatory conservation and allocation, fuel switching by industry, and oil sharing with other nations.

The enabling legislation allowed the executive branch a lot of flexibility. The minimum amount to be held in storage was originally set as 150 million barrels, with up to one billion barrels possible. The act suggested an amount which would cover about 3 months worth of imports, or about 500 million barrels. The Federal Energy Administration, now the Department of Energy (DOE) was charged with designing the SPR and planning for the drawdown of the oil. DOE has used the flexibility afforded in the act, and is now planning to store about 750 million barrels and relying on industry to have about 250 million barrels in case of emergencies. The DOE storage will be primarily in salt caverns along the Gulf Coast.

The preparation and filling of the storage facilities is currently beset by many well publicized problems; the filling is far behind schedule, the costs of the program are much higher than expected, and the program management has been poor. In addition, DOE's decision to double the size of the SPR to one billion barrels (750 million Federal plus 250 million industry) lacks any analytical support to justify such an increase. 1 For a program as important as the SPR, these problems are extremely serious. Each barrel of stored oil will have a total cost of about \$25, and increasing storage and maintenance costs could push the cost to \$30 a barrel. The SPR is one of the single most expensive items in the Federal budget.

The SPR Problem Not Yet Faced

The problems of delayed implementation and increasing costs will be either solved or accepted as the price to be paid for embargo insurance. But a more serious problem faces the Government: Can a filled SPR of the planned size serve its purpose—protection against the

economic damages of oil import interruptions—in the best way and at the best time possible?

The existing legislation allows drawdown and distribution of SPR oil if the President, through the Secretary of Energy, decides the oil must be used because of a severe energy supply interruption. The Secretary also has the authority to decide to use the other emergency tools-mandatory conservation, allocation, or rationing. If the SPR with its planned drawdown rate of 3.3 millon barrels a day is used without considering the effectiveness of the other options available. its use will not be optimal. In fact, I believe the temptation to use the SPR first in any energy shortfall will be great.

An actual example may help support my opinion. The United States was recently faced with oil import interruptions because of the revolution in Iran, which had provided about 5-8 percent of U.S. crude oil imports. The fledgling SPR had only about 70 million barrels in place and could not be used because pumps were not in place, but emergency pumps were ordered so the SPR could replace the imports from Iran. Fortunately, the Iran emergency caused little hardship because other oil exporters were able to produce more. DOE's eagerness to turn to the SPR, however, is a harbinger of political reaction to any future interruptions.

Given that the other tools available to combat an oil supply crisis would mean allocation shortages among consumers, replacing the shortfall with SPR oil seems to be the least painful way to mitigate damages from oil shortages. For example, if the new government in Iran produces only half as much oil for export as did the Shah's, the United States would face a 250,000 barrel a day shortage. Such a shortage, if not made up by other exporters, could pinch U.S. supplies. This is a small reduction and the SPR could be pumped to delay the impact for very long periods. The 70 million barrel reserve now in place would only last about 8 months, but a 500 million barrel reserve would last over 5 years, and a billion barrels over a decade. From the executive branch's viewpoint, using the SPR would be better than mandatory conservation, rationing, or allocation.

Why Not Use the Oil If It Is There?

An oil reserve with substantial withdrawal capacity is a powerful device, both as a deterrant to embargoes and as replacement oil in emergencies. Pumping SPR oil at the first decrease in crude oil imports mocks its purpose. To use SPR oil in the Iranian example noted above would be similar to building a peanut butter hoard because of threat of the dreaded peanut weevil, and then using the emergency stocks on a regular basis rather than going to the store. This simple example implies that SPR oil should not be used to avoid inconvenience, but that the benefits should exceed the benefits which could have been made of the money being used to purchase the oil.

The decisions about which tools to use in case of an oil import reduction should be based on objective analysis of each action or combination of actions. I have noted above that using SPR oil to replace small decreases might not yield the benefits which were foregone to purchase the oil. In addition, I can postulate several very substantial costs of suboptimal use of SPR oil. These costs both relate to the fact that as the level of the SPR fell, the government would be faced with a decision about whether to refill it. Ramifications of the options are:

- Refilling the SPR simply would mean that the financial costs of the reserve will be more directly borne by those who benefited from its recent use. One of those costs could be increased inflation because if one reason to pump SPR oil was lack of excess capacity worldwide, DOE purchase of replacement oil would be in effect more money chasing the same goods.
- Not refilling the SPR would leave the United States vulnerable to all the possible emergencies which could decrease the flow of crude oil to the United States.

The first decision would be a reversal of normal consumer pur-

chases, in that one would be paying now and using later. How long that pattern could be repeated is questionable. The second decision would indicate that embargoes were no longer considered probable. The world could improve that much by then, but somehow the chances seem slim. My conclusion is that if SPR oil is used in any oil reduction situation, it will need to be refilled.

Suggestion

The implication so far is that the mere existence of a large SPR would pose several problems. I am not sure that a short article about a complicated subject is enough to convince anyone of the seriousness of the issue of when to use the SPR and how much of it to use. I do have a suggestion which would help insure that the SPR would be used only in situations where it would be put to optimal use, rather than in situations of inconvenience or of potential political harm.

I suggest that Congress amend the enabling legislation to include a definition of what a severe energy supply interruption is, and how the various tools available to DOE should be combined. Two parameters which should be defined are the amount of leadtime before a supply interruption occurs and the relative size of the supply reduction. With longer leadtimes, greater use should be made of other adjustments; with greater import reductions, more SPR oil would be needed in combination with other tools.

Four problem situations can be used to illustrate how these two parameters could work together to define when a crude oil import supply interruption should be termed an emergency which required oil from the SPR:

Problem A-1

Saudi Arabia suddenly curtails all exports to the United States. This would cut crude imports about 25 percent. SPR oil would be needed to avoid severe economic damage and to ease transition to mandatory controls.

Problem A-2:

Arab OPEC nations decide to GAO Review/Summer 1979

stretch reserves by reducing exports about 20-30 percent over 2 years.

This would be about 10-12 percent of U.S. imports, but the long leadtime would give the United States enough time to adjust without using the strategic stockpile of oil.

Problem B-1:

Nigeria is again split by internal warfare. Rebels destroy 20 percent of its export capacity. Oil imports would decrease 3-4 percent without much, if any, leadtime. The reduction is small and should be handled with mandatory allocation, conservation, and rationing.

Problem B-2:

Venezuela decides to stretch out reserves and will reduce exports by 30 percent over 2 years. This would amount to about 1 percent of U.S. imports of crude. The leadtime is quite long and the reduction is small. No need for SPR oil.

The element of leadtime suggests a useful dichotomy. Oil production cuts which would affect U.S. imports and are known about well in advance would most likely result from overt actions by the exporting nations to stretch out oil reserves. In this situation, the United States should recognize that world production of oil will peak, as has ours, and the future will mean less oil for a growing world population. Abrupt cuts in oil production or exports would probably result from either a decision to exert political leverage or from internal strife. Abrupt cuts would tend to be short term because if the reductions were large, the diplomatic and military efforts to resolve the crisis would be intense. Reacting to an import cut known about in advance as though it were an abrupt cut would be a mistake.

Post Script

The Federal Government is at present committed to a one billion barrel reserve. It seems that a much smaller SPR would meet the requirements which are set out above. A workable definition of GAO Review/Summer 1979

what a severe energy emergency is and when the SPR would be used in a severe emergency, in combination with good probability analysis about the chances of supply interruptions, should be used to size the SPR. My preliminary estimate is that an SPR of about 250 million barrels with a high withdrawal capacity would be large enough to mitigate economic damage and deter embargoes. With an SPR of that size, the Nation could handle a 20 percent import reduction for 6 months, and larger amounts for shorter periods. When used with mandatory conservation, allocation, and rationing, such an SPR could cover even larger amounts.

The problem of less than optimal use of the SPR when filled could be avoided if it is used only during a severe energy emergency and its total size is reduced to avoid casual use of the oil. I believe that realistic discussions about energy import emergencies and how to react to them must include reassessment of the use and size of the SPR.

¹ GAO reports on the SPR include EMD 77-20, 2/16/77, and ID 79-8 [has not been issued yet].

1122976



Marianne S. Kah

Ms. Kah is currently an analyst on the Energy Policy Branch staff in the Energy and Minerals Division. She joined GAO in 1976 and worked in the Program Analysis Division for 1½ years. She received a B.S. degree from Cornell University. Ms. Kah also worked in Cornell's Resource Economics Department. She received an M.P.A. from the Maxwell School at Syracuse University.

The Merits of Oil Price Decontrol

Oil is a vital energy source. It supplies the United States with fuel for transportation, industry, and agriculture, and it enables us to heat and cool our homes and generate electricity. Over the past years, we have become increasingly dependent on foreign oil. In 1978, we imported 43 percent of our needs as compared with 29 percent in 1972.1 At the same time, foreign oil prices have increased dramatically. The greatest increase, during the 1973-74 Arab oil embargo, raised foreign oil prices 366 percent.² Moreover, 1979 has seen substantial price increases as members of the Organization of Petroleum Exporting Countries (OPEC) took advantage of Iran's recent oil production shut down and a tight world oil supply. Further, as long as world oil demand continues to exceed the available world oil supply, world oil prices should continue to rise.

Domestic crude oil price controls have partially shielded U.S. energy consumers from the impacts of large foreign oil price increases and associated increases in inflation. But by holding the domestic price below the world level, price controis have also encouraged domestic oil consumption and our dependence on imported oil and discouraged domestic oil production. The greater the degree of American dependence on imported oil, the greater our vulnerability to further abrupt oil price increases and supply interruptions. Thus, if the intent of a national energy policy is to stabilize oil prices and reduce oil supply vulnerability, the results of price controls are counterproductive. However, deregulation will help to reduce import dependence, extend existing oil supplies, and promote the switch to alternative sources of fuel.

President Carter began to phase out price controls on all domestically produced crude oil on June 1, 1979, and this will result in domestic oil prices reaching world prices by October 1981. Although congressional approval is not needed to decontrol oil prices,³ the price of

domestic oil will be a major issue in Congress in the coming months. To prevent increases in predicted high inflation rates in the next few years, Congress is considering legislation to extend crude oil price controls another 2 years⁴ and some members of Congress are attempting to permanently block decontrol.

Price controls encourage dependence on imported oil and deregulation is the most effective energy pricing policy for reducing imports. Athough there will be economic costs of deregulating oil prices, over the long run, these costs are acceptable and are partially offset by the economic benefits of reduced import dependence.

The Dangers of Oil Import Dependence

Reducing our dependence on imported oil has been a major goal of past and present administrations. Oil import dependence threatens our economy and national security by increasing our vulnerability to sudden increases in the price of crude oil and to oil supply interruptions.

The price the United States pays for foreign oil has risen sevenfold since 1971, while the general price level for all consumer goods and services has not quite doubled.6 The recent upward spiral of oil prices results from the response of certain OPEC members to the tightening world oil market. For example, many OPEC members took advantage of the shortfall in world oil supplies caused by the shutdown of Iranian production by adding a premium for their oil over the official OPEC price. By May 15, 1979, most OPEC members added surcharges ranging from \$.90 to \$3.67 a barrel to their official selling price. 7 Now that Iranian production has resumed, albeit slowly, certain OPEC members are cutting back production to maintain a tight world oil market and high prices. Studies by the Brookings Institution and Congressional Budget Office indicate that rapidly rising oil prices

threaten our economy by increasing inflation and unemployment and decreasing economic growth.⁸

Our Nation has experienced oil supply disruptions resulting from the 1973-74 Arab embargo against the United States and the Iranian production shutdown of this past year. In general, an oil supply interruption results in direct economic loss, while the permanent price increase following the disruption adds to inflation and unemployment. A supply interruption also weakens national defense capabilities and could give a strategic advantage to the energy self-sufficient Soviet Union in conventional warfare. Furthermore, a supply interruption could strain relations between the United States and our oil-dependent Western and Pacific allies, and could give OPEC countries leverage over our foreign policy.9

Controlling Oil Prices

Price controls keep the price of domestic crude oil below the world price and equalize the cost of oil to all refiners. The Nixon administration's Cost of Living Council established the controls in 1971 as part of its inflation control program. Later, the Emergency Petroleum Allocation Act of 1973, as amended by the Energy Policy and Conservation Act of 1975 (EPCA), established our current system of price controls. A three tier domestic pricing system was set up whereby "lower tier" (old oil) and "upper tier" (new oil or oil discovered after 1973) were priced substantially below "uncontrolled" (Naval Petroleum Reserve, stripper, 10 and Alaska North Slope) oil. Approximately two-thirds of domestically produced oil was in the controlled categories. In 1978, for example, producers sold lower tier oil for about \$6 per barrel, upper tier oil for about \$13 per barrel, and uncontrolled oil for about \$14.50 per barrel.11 This translated into an average cost of domestic crude oil to refiners of about \$10.45 per barrel compared with a world oil price of \$14.50 per barrel. The gap between domestic and foreign oil prices led to a program, called the Entitlements Program, to equalize crude oil costs between refiners using expensive foreign crude and those refiners who could obtain cheaper domestic crude oil. The Entitlements Program directly encourages oil importation by subsidizing refiners who use foreign oil. Since 1974, domestic refiners have paid a price that averaged the cost of foreign oil in with the cost of domestic oil. In 1978, therefore, domestic refiners paid about \$12.40 per barrel for oil, about 15 percent below the world price.

Why Price Controls Increase Oil Imports

By keeping the price of domestic crude oil below the world price, price controls block the conservation effect of higher prices at the same time that they remove some incentive to explore for new domestic oil supplies.

Low oil prices encourage the consumption of petroleum products directly for gasoline and heating oil and indirectly for electricity generation and petrochemicals. Overall, artificially low oil prices do not encourage maximum efficiency of energy use in industrial processes, transportation, and agriculture. Continued price controls further encourage land-use patterns and lifestyles such as suburbanization and leisure drives that increase the consumption of gasoline. Thus, removing price controls and allowing the price of oil to reach the world level would tend to discourage oil consumption and imported oil dependence.

Controlling domestic oil prices discourages domestic oil production. If producers get a price lower than that prevailing on the world market, they will have less incentive to obtain maximum production from existing oil fields or invest in new domestic exploration and drilling. While no consensus exists on the responsiveness of oil production to price changes or "supply elasticity," the literature indicates at least a moderate elasticity. Hopefully, raising the price producers can charge for domestic oil would significantly increase domestic production, lowering the need for imports. Conversely, holding the domestic price of oil down discourages domestic oil production and raises our demand for imports.

Finally, maintaining an artificially low domestic oil price discourages the production of alternative fuels such as heavy oils, tar sands, coal, nuclear, and inexhaustibles such as solar energy. This also forces the United States, now and in the future, to import more oil.

The Merits of Deregulation

Deregulation is an energy policy worth pursuing. It will help promote our national energy goals of reduced import dependence and longterm stability in the price and supply of energy and will do so more effectively than other policy alternatives. Further, it will reduce imports without the severe economic consequences of a direct quota on imports. The economic costs of decontrol will be of limited severity and duration. Still another reason to deregulate is to eliminate our clumsy and expensive system of price controls and its associated disincentives to conserving oil and switching to alternative fuels.

Deregulation Supports National Energy Goals

The most important objective of a national energy policy is maintaining an adequate energy supply at reasonable prices. As was previously stated, oil price controls encourage import dependence and discourage production of oil and alternative fuels. In the short term. price controls appear to support the national energy goal of maintaining reasonable oil prices. However, over the long term, an adequate energy supply relative to demand will more effectively insure reasonable oil prices. By increasing the energy supply and reducing demand, deregulation supports both the supply and price goals of energy policy. Lowering energy demand relative to supply would help put slack back in the tight world oil market and stabilize world oil prices. Lowering energy consumption would also help stretch out oil and gas supplies and give us more time to come up with workable alternatives. In 1985, deregulation should reduce domestic oil. demand by 1.1 mmb/d¹² and increase domestic production by

400-500mb/d.¹³ This will result in an import reduction of 1.5 mmb/d or 20 percent.¹⁴ However, these figures should be interpreted only as a range of effects because the supply and demand responses to oil price increases have never been accurately estimated.

The United States also has international commitments. We have promised the Organization for Economic Cooperation and Development (OECD) and the International Energy Agency (IEA) that we would move our oil prices to world levels and reduce our consumption by 5 percent. (It should be noted that many European members of the above-mentioned organizations tax the price of oil above and beyond the world price.)

Thus, because of the dangers of imported oil dependence; the need, over the long-run, to maintain an adequate energy supply at reasonable prices; and our promises to our European friends, we should deregulate oil prices.

Macroeconomic Costs of Decontrol Are of Limited Severity and Duration

The current debate over oil prices centers around the need to promote energy versus economic goals. The benefits of reducing import dependence must be weighed against the costs in terms of inflation, unemployment, and reduced economic growth.

Our Wharton model projections show that except for inflation, economic costs of deregulation will be relatively small. Moreover, the inflationary impacts will be temporary, will steadily decline in severity after 1981, and will disappear by 1990.

Inflation is considered by many to be the number one problem facing the Nation today. The President would phase in deregulation over a 2-year period to minimize the impact on inflation. However, decontrol would still add .4 percent to inflation in 1980 and .5 percent in 1981. While these are small additions to the total inflation predicted for these years, any additions to these already high inflation rates are serious. However, the effect deregulation will have on inflation

is temporary, and by 1990 decontrol would no longer affect inflation. Over time, decreased dependence on imported oil resulting from deregulation should help stabilize inflation.

Our model projections further show that deregulation will not significantly increase unemployment. In 1980, deregulation would raise the unemployment rate by .1 percent and would have no effect by 1985.

While deregulation would result in a real (1972 dollars) Gross National Product (GNP) loss of \$3 billion in 1980, this represents only .2 percent of the total GNP. By 1985, the GNP loss would be even smaller (.05 percent).

Finally, by reducing imports, deregulation would improve our balance of trade.

Therefore, although deregulation increases short-term inflation, our Nation's energy goals and long-term economic stability would be better assured by deregulation than continued price controls.

Deregulation Most Effectively Reduces Imports

Deregulation not only fulfills national energy goals better than price controls, but it is the most effective means of doing so with relatively small economic costs. Other methods by which the Federal Government can reduce imports are the Crude Oil Equalization Tax (COET), which taxes the price of

domestic oil to raise it to the world level; import fees; and quotas which directly limit imports. While COET and fees were rejected by former Congresses, quotas have been used to limit imports in the past. These policies reduce imports by a combination of lowering domestic oil consumption and increasing domestic production. Table 1 compares the import levels, domestic production, and consumption effects of deregulation and alternative policies with continued price controls. Tables 2 and 3 show the impact alternative policies have on oil prices and inflation.

COET was proposed in the administration's National Energy Plan of 1977 but was rejected by the 95th Congress. COET would have decontrolled newly discovered oil and taxed controlled oil to the world price. Tax collections would have been fully rebated to all taxpayers. COET is less effective at reducing imports than deregulation, although it imposes less adverse impacts on our economy. Since both COET and deregulation bring the price of domestic crude to the world level, they achieve the same oil conservation benefits. However, COET does not provide the oil industry with as much incentive to increase domestic production as deregulation. This is because less oil is decontrolled under COET. and, of the oil that remains controlled, the Federal Government receives the difference between the controlled and world prices. However, COET generally results in less inflation and less harm to our

Tа	hi	0	1

EFFECTS OF ALTERNATIVE POLICIES ON OIL PRODUCTION, IMPORTS, AND CONSUMPTION IN 1985 (mmbd)

(
	CPC ¹⁵ (Level)	COET	FEES	DEREG ¹⁶	QUO Minimum	TAS Maximum
Imports	11.3	-1.1	-1.1	-1.7	-2.7	-5.4
Domestic Production	9.5	+.1	1	+.5	+.4	+.2
Total Consumption	20.8	-1.0	-1.2	-1.2	-2.3	-5.2

^{15 ·} CPC" is continued price controls

Source GAO Wharton Annual Energy Model projections, May 1979

¹⁶ This is BMD's generalized deregulation case

economy than deregulation or the fee on imported crude oil and other alternatives. refined products would certainly

Table 2 ADDITIONS TO THE INFLATION RATES CAUSED BY ALTERNATIVE OIL POLICIES 1980 1985 1990 Inflation Rate 5.2 4.9 CPC (level) 7.6 **Changes from CPC** COET .3 .2 0.0 FEE .3 .3 0.0 .2 .4 0.0 DEREG .4 QUOTA - MIN .6 0.0

Source: GAO Wharton Annual Energy Model projections, May 1979.

1.0

.8

		-	_
Ta	h	ı۵	-

EFFECTS OF OIL IMPORT POLICIES ON GASOLINE AND HEATING OIL PRICES

	1980	1985
Additions to CPC Gasoline Prices (cents/gal.)		
COET	.07	.17
FEE	.07	.17
DEREG	.07	.17
QUOTA - MID	.10	.39
MAX	.32	1.24
Additions to CPC Heating Oil Prices (cents/ gal.)		
COET	.01	.06
FEE	.06	.15
DEREG	.07	.16
QUOTA - MID	.08	.35
MAX	.30	1.04

MAX

Source: GAO Wharton Annual Energy Model projections, May 1979.

The President has the authority to place a fee on imported oil without congressional approval. However, when the administration suggested this option in 1978, the Senate passed a bill that would have prevented it from doing so. A

raise consumer oil prices and consequently reduce domestic oil consumption. However, the Entitlements Program would be maintained since the gap between domestic and foreign oil prices would widen. By equalizing the

cost of oil to all refiners, the Entitlements Program would reduce the cost of imported oil and thus continue to encourage its consumption. Further, a fee on imported oil would not encourage increased domestic production since it would not raise the price of domestic oil. Thus, a fee on imported oil would not be as effective at reducing imports as deregulation or COET. The economic consequences of import fees are similar to COET. Import fees are generally less inflationary and have less of an adverse impact on economic growth than deregula-

Although not directly a pricing option, a quota can be used to directly limit imports. Scarce oil supplies would then be administratively rationed or allocated through the market by letting the price rise until demand equaled supply. Although quotas are the most effective means to achieve a desired import goal, they have large administrative and economic costs. Large quotas, such as one to lower imports to 6 mmb/d in 1985¹⁷ would have severe economic consequences and would do little to increase domestic production. Quotas may more appropriately be reserved for circumstances when import reductions are urgent.

Deregulation is the most effective means of reducing imports without the high costs associated with instituting a quota. Costs to consumers would be similar to the other policies. COET and import fees have slightly less of an adverse impact on our economy than deregulation but do not increase domestic production as much, and therefore are not as effective at reducing imports.

A Final Comment

The President's phased-in deregulation proposal would cause a sudden surge in oil company profits. The administration estimates that oil price increases due to deregulation will generate \$58.2 billion in additional producer revenues between 1979 and 1985. Current debate on who should get "windfall profits" resulting from deregulation focuses on whether the transfer of income from oil consumers to

producers is equitable, whether oil companies should receive any additional incentives to produce oil from existing wells, and whether oil companies will invest new profits in energy production or nonenergy enterprises. The administration's proposed "windfall profits tax" 19 would resolve only some of these issues. Therefore, the administration should act to insure that the oil industry reinvests its profits in energy production. Otherwise, the U.S. consumer will pay even higher energy prices and face greater inflation without the full benefits of an increased domestic oil supply.

- 1 U.S. Department of Energy, Monthly Energy Review, February 1979, p. 30.
- Werner, R. "The Economic Impact of American Oil Dependency" Current History July/August, 1978 Vol. 75, No. 438, p. 1.
- 3 As legislated in the Energy Policy and Conservation Act of 1975 [EPCA], price controls became discretionary in May 1979 and expire in 1981.
- 4 Bill Numbers: \$936, HR 3620.
- 5 This article is based on an Energy and Minerals Division analysis of the energy economic effects of alternative oil import policies.
- 6 U S General Accounting Office, "More Attention Should Be Paid to Making the U S Less Vulnerable to Foreign Oil Price and Supply Decisions," EMB-78-24, January 3, 1978, p. 12; Council of Economic Advisory. Economic Report of the President, January 1979, Table B-55, p. 246.
- 7 U.S Department of Energy, Weekly Petroleum Status Report, May 18, 1979, p. 3
- 8 Fried, Edward R. and Schultze, Charles L. Higher Oil Prices and the World Economy, The Brookings Institution, Washington, D.C., 1975; The Congressional Budget Office, The Economic Impact of Oil Import Reductions, U.S. GPO, Washington, D.C., 1978.
- ⁹ Generàl sources consulted: Choucri, Nazli. International Politics of Energy Interdependence, Lexington Books, D.C. Heath and Company, Massachusetts: 1976; Erickson, Edward. "The Strategic-Military Importance of Oil" Current History, July/August, 1978; U.S. Department of Treasury. The National Security Effects of Oil Imports, March 1979.
- 10 "Stripper" oil is oil from wells producing 10 or less barrels per day.
- 11 U.S. Department of Energy, Monthly Energy Review, March 1979, p. 74, 75.
- 12 mmb/d is millions of barrels per day.
- 13 mb/d is thousands of barrels per day.
- 14 The Wharton Annual Energy Model was used to project all energy and economic effects of deregulation and alternative policies. The deregulation results referred to in this article are based on EMD's generalized deregulation case which is similar to but not identical to the President's plan.
- 17 This was the import reduction called for in the Administration's 1977 National Energy Plan.
- 18 U.S. Department of Energy, unpublished data provided to EMD.
- 19 H.R. 3919.



Vinita Mathur

Vinita Mathur has been a technical information specialist in the Office of Information Management since 1977. She holds a Ph.D. in information science from the London University.

Spotlight on GSC

The lights dim. The music starts. The chatter fades to scattered whispers as the movie projector hums and the show begins.

A Hollywood screening at Mann's Chinese Theatre? No. It is the start of the General Services and Controller (GSC) Day program in the GAO Auditorium. GSC is such a new and diverse organization that many people within GAO, including many in GSC, did not fully understand the specific functions being performed in each GSC office. To help meet this need, the REASON¹ Committee organized the GSC Day presentation on March 29, 1979, for all GSC employees and quests.

During the presentation, the GSC directors spoke about their branches' responsibilities while slides showing the branches' staff at work were displayed on the auditorium's screen. The role of GSC within the overall GAO structure and the contribution of each GSC office to the audit report—GAO's main work product—were discussed.

In keeping with GSC's service orientation, this article was written to explain GSC's functions to you. If you have ever wondered who handles the logistics for your travel or who prints your audit report—read on!

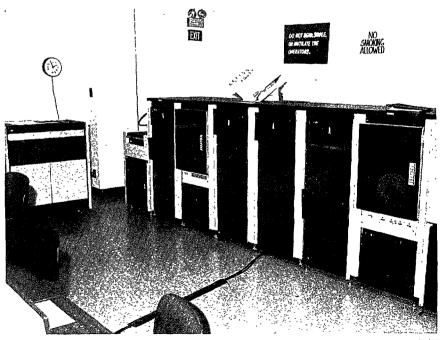
Managing GAO's Information

The Office of Information Management was created in July 1978 to help establish new ways to manage information technology in GAO. Its four functional groups cover such diverse areas as information policy, management systems, and information dissemination.

The Policy, Planning, and Review Branch formulates GAO's long-range plans for ADP, micrographics, and word-processing, and reviews and evaluates existing information systems. This branch also develops standards, procedures, and policy recommendations for the Information Policy Committee.

The Management Systems Development Branch is currently coordinating the development of several major administrative systems, including the new GAO Automated Personnel Administration System, the Assignment Management and Planning System, and the Integrated Management Information System known as Aires.

The Document Systems Development Branch designs and implements efficient and cost beneficial systems for processing and disseminating GAO information from the time it is created until the time



it is communicated to the Congress and the public-at-large. This group also publishes the GAO Documents Journal. A prime example of the work of this branch is the GAO documents handling and information services facility, which uses automated techniques to store, retrieve, and disseminate information to respond to requests for GAO documents. It also uses sophisticated techniques for controlling inventories of printed documents to meet the increasing demand for copies. Currently the facility responds to approximately 17,000 requests per month for GAO's products.

The ADP Administration Staff administers and allocates the GAO ADP budget and acquires all ADP services and equipment for the agency. This group controls the budget used to purchase ADP services and equipment and provides periodic reports on these expenditures to the divisions. This staff also establishes and implements standards and procedures for acquiring and using ADP services and equipment.

Watching the Budget

The activities of the Office of **Budget and Financial Management** (OBFM) are closely related to the daily activities of every employee. contractor, consultant and vendor of GAO. OBFM coordinates and prepares GAO's budget request each year, and then converts GAO's appropriation (\$186 million this year) into financial plans for each division and office. As payroll, travel, and vendor payment transactions occur, OBFM processes them and prepares and analyzes monthly and year-end financial reports. The staff also prepares final. year-end financial reports for the Department of the Treasury, the Office of Management and Budget, and the Congress, and then begins the cycle again.

Did you ever wonder what happens between the time you submit a travel voucher and the time you receive reimbursement? OBFM's Travel Unit annually processes some 25,000 travel orders, prepares 4,000 travel advance checks, audits 10,000 travel vouchers, and maintains 4,000 travel advance balances.

In addition, the unit pays all Government transportation tickets for GAO.

The staff of OBFM's Payables Unit keeps track of all the vendors who provide services to GAO. This unit maintains 6,000 vendor accounts arising from all of the purchase orders, contracts, and service agreements entered into by GAO.

The Accounting Unit of OBFM maintains the agency's central accounts and processes the dollar values of all the above-mentioned transactions plus the travel transactions of the regional and overseas offices. The Accounting Unit also collects into the U.S. Treasury all of the monies that GAO's Claims Division receives, settles all work-related property damage claims of GAO employees, and processes all bills for reimbursable services GAO provides to other agencies.

How does the Office of Budget and Financial Management keep track of all this? OBFM's computer analysts, programmers, and technicians maintain and operate the automatic data processing systems necessary to support these activities and functions.

Administering to Many Needs

The Office of Administrative Services (OAS) provides a wide variety of goods and services to help you effectively perform your duties.

As you all know, GAO generates a lot of paper. The Directives and Records Management Branch is responsible for GAO's form management program, GAO's records disposal program, and the process for approving other agencies' records disposal schedules. The branch also oversees the operations of GAO's workpaper storage facility. (You wondered who got all those boxes of workpapers from your last job!) In addition, this branch undertakes special projects such as designing a GAO-wide filing system and working with our regional offices to implement a microfiche system.

The Facilities Management Branch oversees space management, including remodeling and maintaining all space we occupy. They also install and modify telephones, manage GAO's teleconferencing system, and monitor the use of GAO's auditorium. This branch assures that physical and document security is maintained. And, it is also responsible for GAO's parking program.

The General Services Branch is responsible for GAO's property management system, and it offers a variety of travel services including making airline reservations. They are the people you call for everything from typewriter repairs to carpenter and other labor services. Staff from General Services also supply auditing staff with most supplies—even the famous blue pencils.

Everything that GAO purchases or rents, from small office supplies to large and complicated ADP services, is ordered by the procurement branch. This branch is also responsible for GAO's contracting operations.

Analyzing Systems and Procedures

The Systems and Procedures Analysis Staff (SPAS), established nearly 2 years ago, reviews, analyzes, and evaluates GAO administrative functions, develops procedures to document these functions, coordinates and implements administrative systems, and conducts special studies and reviews.

SPAS is project oriented. As one of its primary responsibilities, SPAS develops procedures for various administrative functions, even those performed by other GSC staff. This responsibility has high priority because there is not much procedures guidance for most GAO administrative functions.

Another SPAS project is the GSC Management and Career Development Program, which is being designed to provide GSC managers and staff with exposure to, and experience in, various administrative and managerial concepts and techniques, including project management, personnel administration, counseling, and leave management.

This is the one GSC office with audit responsibility. SPAS administers and audits all GAO imprest funds, including those of the Commission for Security and Cooperation in Europe, the Commission on Financial Oversight for the

District of Columbia, and the Office of Technology Assessment.

SPAS also functions as a focal point for coordinating numerous complex administrative systems and functions as they are planned, developed, and implemented. These include the GAO-wide Word Processing Study; the locator system design, development, and implementation; and the compressed hours/flexitime study.

Finally, SPAS performs a wide variety of special studies and analyses, as requested by the Director, GSC. These projects require analytical expertise and thorough coordination since many are sensitive and impact on all of GAO. These assignments include: job codes administration, budget review and administration, organization analysis, management news coordination, and reports review and analysis.

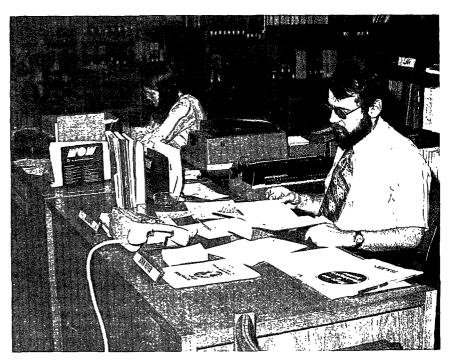
From Books to Microfiche

Perhaps the GSC group most familiar to staff is the Office of Librarian. The Law and Technical Libraries provide research assistance to GAO staff members. For example, when an auditor begins an assignment in a new area, he or she may request that the librarians perform a literature search and obtain books, documents, or other information pertinent to the assignment.

In addition to research assistance, the acquisitions group acquires materials of interest to the GAO staff. To do this, Library staff must keep abreast of on-going audits, future requirements placed on GAO by Congress, and staff requests. Once these materials are received, they are cataloged and processed for the shelves so that they are easily accessible to the staff.

To alert GAO members to new acquisitions, a monthly publication entitled the *Literature Limelight* announces all new materials that have been added to the Library collection during the past month. In addition, librarians and technical information specialists publish bibliographies on topics of general interest to alert GAO staff to new publications.

Often, staff request items that GAO Review/Summer 1979



are not owned by the GAO libraries. When this occurs, the Library borrows such materials from other libraries through our Interlibrary Loan Program. By the same token, we loan our materials to other libraries when requested.

The Library has collections of Federal Agency Regulations unique to the Government. The Library also obtains a large number of materials in microfilm, thus significantly increasing the scope of the collection. The collection emphasizes the subject areas of accounting and auditing, program and policy evaluation, energy and public administration, and management.

To supplement the Library collection, Library staff access over 80 separate data bases to obtain abstracts of articles, reports, books, and other information. By using these data bases the Library can provide customers with a great amount of relevant data in such diverse categories as accounting, pollution, psychology, research in progress, agriculture, dissertations, engineering, energy, medicine, health, and education. These data bases are essential to us if we are to cope with the results of the information explosion.

While the Library may not always be able to provide an answer, the staff can usually refer patrons to a source from which the information required can be obtained.

Lending a Helping Hand

The Organization Development (OD) staff is responsible for improving GAO's productivity and quality of work life by assisting work groups and organizational units to identify and resolve issues hindering effectiveness.

For example, the OD staff may be called in to help a work group resolve an interpersonal conflict problem. The OD staff would begin by having the group define the problem and state it clearly. Next, the group would be asked to define the essential conditions or criteria which a solution must meet to be satisfactory. The remaining steps in group problem solving include:

- Listing solutions through brainstorming techniques.
- Gathering all relevant facts on the extent to which each proposed solution will or will not meet the criteria for solution.
- Evaluating alternative solutions and selecting the one(s) that best meet the criteria.
- Checking the solution or solutions finally selected against the stated problem to be sure the solution really solves the problem.

- Developing an action plan to implement the solution.
- Implementing the action plan.
- Evaluating the implemented plan to be sure the solution selected is producing the desired outcomes, and that no unexpected side effects are being ignored.

This is just one of the variety of techniques or methodologies used in OD projects.

Over the past 4 years the OD staff has provided assistance to a number of headquarters divisions and offices and to several of the regional offices. These have included International Division, Office of Librarian, and Atlanta regional office. The OD staff helped these groups build teams, change systems and procedures, and restructure organizations.

Currently, the OD staff is working with the racism consultants in the Norfolk regional office and in GSC as part of the GAO-wide antidiscrimination effort.

GAO's Publishing House

The Office of Publishing Services (OPS) was established in 1978. It is the largest of the six GSC units, and it is probably the most diverse in terms of personnel and functions.

The major functions of OPS are to:

- Write, edit, and prepare for publication all of GAO's nonaudit written material, including this magazine, the Comptroller General's Annual Report, and any guides, program plans, etc.
- Help you brush up on basic writing skills by offering the introductory writing and POWER (Producing Organized Writing and Effective Reviewing) courses.
- Print and reproduce GAO's publications. Sections of the Printing Branch include copy printing procurement and a copy preparation unit for inhouse and contract printing; copy services, which provide both self-service and a fast copy service; and a



micrographic unit which will microfiche any document ranging in size from 3x5 cards to 14x24 sheets. The printing staff can also tell you how long it will take to print your publication and, after it is printed, check it to assure a high level of quality.

 Sort and deliver mail to GAO staff in the GAO building, at 71 audit sites, and at other locations throughout the metropolitan area. The staff

- in Distribution works handin-hand with the Mailroom staff. The Distribution section is split into two groups: Initial Distribution, which ensures that the printed reports are sent to everyone listed on GAO's Form 115, and the Special Publications group which distributes all nonaudit publications.
- Design and illustrate GAO's publications. OPS' 16 visual information specialists can supply you with photographs, original drawings, charts, and graphs to illustrate your report or special publication. They can also design your publication's cover and format or build an exhibit. In other words, they can provide you with a visual presentation on any topic you'd like to communicate.
- Design and produce video and slide/tape presentations and provide audio-visual services. The OPS audio-visual specialists are experienced in every stage of film production, including script writing, producing, and directing. The A-V specialists have produced many training and information presentations and they may be able to help you in your internal communications needs.



Now that we have had the spotlight shining on us, we hope to keep it there. We want you to know we are here to support GAO. We are proud of what we do and believe we do it well.

The Ten Commandments of Human Relations

- 1. Speak to people. There is nothing as nice as a cheerful word of greeting.
- 2. Smile at people. It takes 72 muscles to frown and only 14 to smile.
- Call people by name. The sweetest music to many ears is the sound of one's own name.
- 4. Be friendly and helpful. If you would have friends, be friendly.
- Be cordial. Speak and act as though everything you do is a genuine pleasure.
- 6. Have a genuine interest in people.
- 7. Be generous with praise. Cautious with criticism.
- Be considerate of the feelings of others. There are three sides to a controversy: yours, the other side, and the right one.
- 9. Be thoughtful of the opinion of others.
- 10. Be alert to give service. What counts most in life is what we do for others.

¹ Reenforcing and Enhancing Awareness of Social and Organizational Needs [REASON] Committee was established to accomplish the objective of the EEO Order 0780.1 for GSC.

Ode to Administrative Services

Lee Brown

Mr Brown, a management analyst in the Office of Administrative Services, General Services and Controller (GSC), "wrote this poem in a moment of temporary frustration" and recited it for his coworkers at the March 29th GSC Day presentation.

A student at the University of the District of Columbia, Mr. Brown is studying business management. He has been with GAO since 1968, a career interrupted only by 3 years' service in the Army. He was recently promoted to Chief, Space Management Section.

Nobody knows

That though I'm in services
That though I'm a servant
I take as much pride in my work
As those of royal highness

Nobody knows

That as much as I would like to That as hard as I drive That my battle is lost Before the war has begun

Nobody knows

That no matter how high the priority
There will be one higher
That I must stop working with kerosene
And commence working with gasoline

Nobody knows

That I never catch up

Nobody knows

That I never take breaks

Nobody knows

That I rarely leave on time

Nobody knows

That I am not super-human

Nobody knows

That on any given day I have a list of thirty things to respond to

Nobody knows

That somedays I don't even get to this list

Nobody knows

That I must do one hundred and sixty miles per hour in an eighty miles per hour zone

Nobody knows

That I never get parking tickets, simply because I am not parked long enough

Nobody knows that I am doomed for accidents For it's impossible to yield the right-of-way

Nobody knows

That I must get work accomplished in two days When the requestor knew he needed such work for two months

Nobody knows

That I will be penalized because sometimes I can't work miracles

Nobody knows that if I try to save a minute by returning phone calls at a set aside moment That I, along with my division, will be accused of being non-responsive

Nobody knows

That if someone requests work by phone and I ask for a requisition or memo

That I will be accused of not being helpful

Nobody knows

That if I spend a few minutes longer on any given request That surely there are others I will not address

Nobody knows

That I am only human They have all forgotten, I have only two hands, two feet, two eyes, one brain, and one heart

Nobody knows

That I can feel

Nobody knows

That I must do the impossible for the impolite Nobody knows

That I must do it quickly and I must keep quiet

Nobody knows

That I must be perfect with little time to perform and no time to pause

Nobody knows

That I must be efficient with no concentration on my effort

Nobody knows

That I must be fast when I have no fuel

Nobody knows

That I must keep trucking but I haven't time to think

Nobody knows

That I am calloused because I can't be careful

Nobody knows

That I am blamed if I do and damned if I don't

Nobody knows

That I can when I can't and that I will when I won't

Nobody knows, Nobody knows

And you will never know

Unless you've been there too

(November 13, 1978)

An Interview With the Man Behind the Scenes

Cindy Ryan

To give GAO employees a closer look at our Deputy Comptroller General, *The GAO Review* has printed the following interview between Mr Keller and Cindy Ryan (*The GAO Review* Staff)



- Q. How did you get started at GAO?
- A. I started my career here in 1935.
 At that time jobs were hard to find. I was going to law school and I needed a job in order to continue school. When I went to work with GAO I had no idea what GAO did or was supposed to be doing.
- Q. What was your first job here?
- A. I was a reconciliation clerk—GS-3. We reconciled all treasury checks that were issued. That work is now done by the Federal Reserve Banks. It wasn't a very exciting job, but it was a job.
- Q. With competition as heavy in the Government as it now is do you think it is likely that an employee could work himself/ herself "up the ladder" as you have?
- A. I don't see why not. Particularly at GAO. If you look around at

our division directors, you will find that most of them began their careers in GAO right out of college. Maybe not at a grade GS-3, but at a grade GS-7. But to be a division director or to be appointed to a position like mine a lot depends on being in the right place at the right time. I have been fortunate in that respect.

My position, like Mr. Staats', is a Presidential appointment. I did not seek political help. However, I was Mr. Staats' candidate, and that was enough. I think it is interesting that the last three Deputy Comptrollers General were career employees of GAO.

- Q. What are your responsibilities as Deputy Comptroller General? Has Mr. Staats assigned any special roles to you?
- A. The Comptroller General and I have no clear division of responsibilities. We work very closely together, and we keep each GAO Review/Summer 1979

other informed about our work. A. Back in the 30's and early 40's If I had to divide our duties. I would say that I have primary responsibility for approving legal decisions of the Office. And I have primary responsibility for the Office of Congressional Relations. I also work with Mr. Pin on the budget. I am also involved with the EEO Council. the Career Level Council, and various other councils in GAO. I review all the audit reports before they go to Mr. Staats, and I am a member of the Program Planning Committee. Mr. Staats and I work jointly on the management problems of the Office.

- Q. What would you say is the most difficult part of your job?
- A. The most difficult part of my job is dealing with the Congress and its committees. I like to look at it as a challenge, but it is difficult because there are so many viewpoints in Congress. There are many committee chairmen and subcommittee chairmen, as well as individual members, to deal with. And sometimes it is very difficult to keep GAO in a position where we are helpful but do not become involved in the politics of a particular problem. GAO has an excellent reputation for being fair and objective. Of course there are always some who don't agree with our conclusions, but for the most part this results from differing political philosophies among the members. For example, HRD recently made a report calling for repeal of the Davis-Bacon Act. It is a very sensitive issue, and we were criticized quite strongly by the pro-labor people. However, there were others who fully supported our recommendation.
- Q. You are one of the few people who has worked in the Office of General Counsel and who has also worked with the programmatic aspects of GAO's audit work. Are there some things people on both sides of the fence should know in order to work better with each other or to better understand one another's work?

- we were doing mostly voucher type audits. At that time the more difficult problems, legal or otherwise, would go to the Office of the General Counsel. But all that has changed now. Our management auditors and specialists have a great deal of responsibility. The lawyers and our auditing divisions must work together. I think there has been a great change in this area in the last 10 or 15 years. Paul Dembling, who succeeded me as General Counsel, set up a special group to work with our operating divisions. This has been quite successful.
- Q. What are some of the most farreaching changes you have witnessed since you have been with the GAO?
- A. There have been many significant changes in the last 40 vears. Back in the 20's and 30's we did strictly a voucher type audit. But we found that with World War II coming along, we had to send our auditors into the field. That gave us our first real opportunity to perform our work outside of the building. Shortly after World War II the Government Corporation Control Act gave us the responsibility to audit all Government corporations. There were 53 at that time, a great many of which were started during the war years. The law specifically provided that the audit must be performed at the site of operations. and that we must perform a commercial type audit. That was our first step in modern auditing. Also, we were fortunate enough to be able to recruit a staff of people who had experience in public accounting. They had gone into the service during the war and for some reason did not want to go back with the firm where they had been employed. And these people-about 200played an important part in changing GAO's method of auditing. We moved from there into the 50's to what we called the comprehensive audit, which was examining Federal agencies' overall financial management as well as individual trans-

actions. Also, in the late 50's and early 60's we emphasized recruiting a highly professional staff. At that time about 99% of our recruitees were accounting majors. Then in 1966 when Mr. Staats became Comptroller General we began to move toward program evaluation. With program evaluation being emphasized, we had to face up to the fact that we needed personnel with backgrounds in other disciplines, as well as those trained as accountants. We now have several hundred people on our professional staff whose disciplines are other than accounting, such as economics, mathematics, system analyses, public administration, etc. Without these people, we could not do the job we are doing now. Some people have asked the question: "Why didn't GAO do this back in the 30's?" You have to remember that you can only go as far as Congress wants you to go. In the 30's GAO was not expected to do this type of work. So the times really govern how fast you can change. Today we emphasize program evaluation not only because the Comptroller General thinks it is important, but also because Congress thinks it important as evidenced by the Legislative Reorganization Act of 1970 and the Budget and Impoundment Control Act of 1974.

- Q. The morale issue is very big in GAO. The problem usually cited has to do with the many changes that have taken place in this agency. Do you think morale is really being lowered?
- A. There is some concern by our employees as a result of recent changes in GAO. It is a very human reaction. "How will this change affect me?" "What are my chances of promotion with this change?" But most of us believe that these changes had to be made to keep GAO a strong and creditable agency. One of the concerns has been our change in the career ladder. It used to be that if you were pretty good you could become a GS-14 without any problem. Civil Service had a lot of problems with this, however. And we

really could not justify that many people moving up to that grade level. So now we have the career ladder going to a GS-12, with competitive selection for grades GS-13 through GS-15.

The teams approach has also resulted in some concerns. It is a change in the way we perform our work. It has been a difficult change to make but it is now shaking down and I believe it is well worthwhile.

- Q. About the future of GAO do you see any changes occurring in the nature of our work or in our responsibilities to the Congress?
- A. Not at this time. But if in the future the Congress wants GAO to do something other than what we are now doing, then of course we are going to have to change. And we should change. For example, there is no way that GAO could have continued to do just voucher audits and survived. Congress and the public expected more from the Office.
- Q. What do you regard as your most significant accomplishment here at GAO?
- A. That is a difficult question to answer. We work on so many things. But everything we accomplish is a team effort, not just something I, or some other individuals, have done personally. Two pieces of legislation which many of us worked on, and which I think are very important, are our authority to audit Internal Revenue Service and our authority to audit the bank regulatory agencies. Both of those took many years to have enacted by the Congress, and we had a great deal of opposition from the agencies involved. But the one thing I learned from those experiences was not to give up, because changes can be brought about.

36

Sesquipedalian 722975 Verbosity Returned

William F. Laurie and Margaret K. Sommers

Mr Laurie is a supervisory auditor of the Detroit regional office (Cleveland). He joined GAO in June 1957 He is a CPA and a member of the American Institute of CPAs and the Association of Government Accountants.

Ms. Sommers is an auditor in the Detroit regional office (Cleveland) She joined GAO in June 1944. She has contributed to articles published in the GAO Review and Duke University Press.

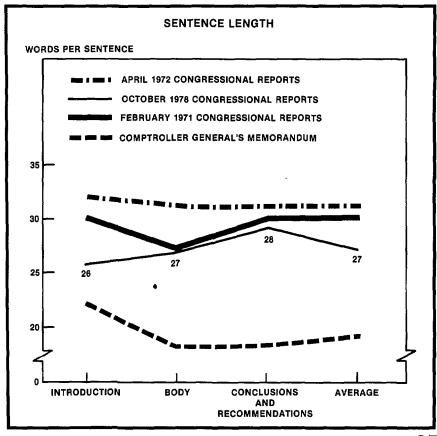
Stilted. Ponderous. Pompous. Complicated. Are these words still descriptive of the language in GAO reports? The Comptroller General in his February 24, 1970, memorandum asked all staff members to improve the language of GAO reports. But how far have we come in meeting his request?

Sesquipedalian Verbosity," an article printed in the 1973 winter edition of The GAO Review discussed how long words and sentences affect the readability of reports. It recommended a reading level of 13 or less. A reading level is the number of years of formal schooling needed to read a document quickly, easily, and with maximum comprehension.

The winter 1973 article noted that a Master's degree (reading level 18) or a Ph.D. degree (reading level 21) was required to read and comprehend congressional reports issued in February 1971 and April 1972. Even more distressing, the conclusions and recommendations of these reports were more difficult to read than the rest of the report (1971 reports-reading level 19: 1972 reports—reading level 22).

To determine if GAO report writing has improved since the article was written, the reading level was computed for 10 reports issued in October 1978. As shown by the reading level graph, a person with 17 years of education could easily and quickly read these reports. Although this is an improvement, it falls short of the reading level of 13 computed for the Comptroller General's writing standards.

The graph also shows that the conclusions and recommendations are still more difficult to read than the rest of the report (1978 reports-



reading level 19). However, a reading level of 19 is better than 22, the reading level of the 1972 reports.

Sentence Length

Our congressional reports still do not meet the criteria of an average sentence length of 22 words suggested by grammar textbooks (1978 reports—27 words). However, as the following graph shows, our sentences are shorter than they were in 1971 (30 words) and 1972 (31 words).

Introductions to our reports, in 1971 and 1972, had the longest sentences. This is no longer the case. 1978 reports' introductions had an average sentence length of 26 words. Although more than the recommended 22 words, it is considerably below the sentence length in the introductions in our 1971 and 1972 reports. Factors contributing to a lower average sentence length are sentence variety—both long and short—and shorter topic sentences. Commendations to the POWER course!

Word Choice

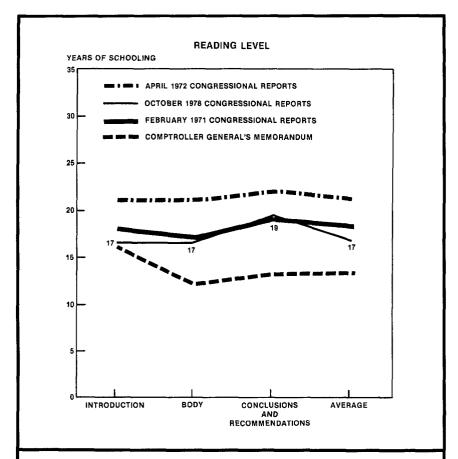
To maintain a reading level of 12 with an average sentence length of 20 words, the number of polysyllabic words (three or more syllables per word) should be limited to 10 for each 100 words.

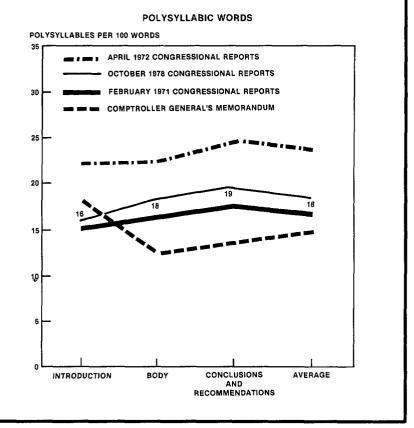
Polysyllabic words were still used extensively in our 1978 reports (18 polysyllables per 100 words). The conclusions and recommendations continued to have the greatest number of long words as shown in the graph on polysyllabic words. The enemies: "governmentese," gobbledygook, technical words, and jargon of the trade still creep into our writing. Further, concept words are often used. Concept words like "instrumentation" do not form immediate mental images when read. Polysyllables tire the reader's mind. Avoid them!

Although we did not achieve the suggested 10 polysyllables per 100 words, we are doing better than we did in 1972 (24 polysyllables per 100 words), but not as good as in 1971 (17 polysyllables per 100 words).

The Solution

To help you prepare more read-





able products we repeat the following guidance which was presented in the winter 1973 article.

Step back from your written product and perform the following simple test—here lies the first step toward readable writing.

- Sample 100 words from the introduction, body, and conclusions and recommendations (or closing) of a report or memorandum.
- Determine the average number of words per sentence. Independent clauses are counted as separate sentences.
- Count the number of polysyllabic words per 100 words. Do not count polysyllabic words which are capitalized or verbs made into three syllables by adding "es" or "ed."
- 4. Add the average number of words per sentence to the number of polysyllabic words per 100 words and multiply by .4. Eliminate digits after the decimal point. The answer is the reading level.

If the reading level exceeds 12, look deeper into what you have written and try the following.

Sentence Length

- Is there variety in sentence length?
- If sentences contain 40 or 50 words, why are they so long?
 Can they be shortened and thereby give more impact?
- Are qualifiers, hedgers, and redundant expressions at work in the longer sentences? Eliminate them.

Polysyllabic Words

- Look for words ending in "ation, tion, ion, ment, ence, and ency." Usually, a good verb has been changed to a noun by adding these endings. The result: Governmentese, a polysyllabic word, and the loss of a good action word. Reconstruct the sentence and eliminate them. Turn them back into verbs.
- Look for technical terms.
 Usually they are polysyllabic

- words and mean little to a layman. Eliminate them.
- Look for concept words. They are also polysyllabic words. Simplify them by using words that readily form mental images.

Although GAO report writing has improved, better written reports are within our grasp. We must continue our commitment to writing training. But most importantly, we must be determined to write readable, clear material and free our reports of stilted, pompous, and complicated language.



Karen Bracey

Ms. Bracey is currently an operations research analyst in the technical assistance group of the Financial and General Management Studies Division. She has an M B A. is business administration and a B S. in mathematics, and is a member of the Operations. Research. Society of America.



William P. Johnston

Mr. Johnston is a supervisory operations research analyst in the Financial and General Management Studies Division. He has an M.B A. in applied economics and a B.S in accounting, and is a member of the Association for Program and Budget Analysis, the Washington Operations Research Council, and the Society of Government Economists

Discriminant Analysis: A Versatile Modeling Technique

Discriminant analysis is a versatile modeling technique which works much the same way as the human decisionmaking process. It uses observable characteristics and past experience to make estimates about future outcomes. Discriminant analysis, however, substitutes mathematical relationships for judgement in predicting these results.

GAO has been confronted by discriminant analysis in different circumstances: in an IRS job we were asked to see if this method of analysis really worked; in an employment discrimination assignment we were asked to identify the factors which explain why some complainants were satisfied with the results of their job action suits while others were not; in a welfare job we were asked to assist the District of Columbia Government in developing and implementing a method to reduce erroneous payments.

Our introduction to discriminant analysis is discussed in terms of

- its origin,
- · how it works,
- how GAO has used it, and
- the conditions necessary for its use.

Origin of Discriminant Analysis

Like many statistical techniques discriminant analysis has its roots, so to speak, in the field of agriculture. In many areas of agriculture it is important to be able to classify individual or small samples of plants into one of two groups. For example, the question may be asked, is this plant from a highyielding or low-yielding group? In 1936 R.A. Fisher developed a model which allowed the separation of species of iris, using characteristics such as sepal length, sepal breadth, petal length and petal width. In 1939, C.A.B. Smith solved the more difficult problem of grouping plants on the basis of yield.² This was considered a more complicated problem since factors such as soil conditions, tilling methods and location could also be expected to affect yield.

Recently E.I. Altman and T.P. McGough, using business financial statements, developed a model for predicting bankruptcy.³ As in the agricultural examples cited above, the purpose of the model was to classify the subjects, in this case businesses, into groups—those which were likely to continue and those which were not.

How Discriminant Analysis Works

In attempting to distinguish between two groups, measures are obtained of characteristics on which the groups are expected to differ. For instance, a credit application might contain questions about an individual's credit history. monthly earnings, occupation, assets and payment history. Mathematics is then used to weigh and combine these factors so the group with the good payment record is statistically separated from the bad payment group. In other words, discriminant analysis allows us to identify that combination of factors which best "discriminate" between these two groups.

This information would, of course, come too late to help with those bad risks to which credit has already been granted and who have failed to pay. However, past experience would be incorporated into the decisionmaking process through discriminant analysis and used as new credit applications were considered for approval. This process would work as follows. As new applications were received, selected information found to be predictive would be obtained. The applications would be evaluated and scored using the model. It would then be a simple matter to see whether an application had a score like individuals who had good payment records or a score like the poor payers. The probability of repayment for any specific application could also be estimated.

Of course, no decisionmaking technique is perfect and the more complex the underlying relationships, the more frequently the wrong choice will be made. In the credit example, two types of errors might be made: (1) credit might be granted to a deadbeat or (2) credit might be withheld from a deserving customer. Statistical tests are available which can be used to evaluate the reliability and predictive power of these models. However, often the question to be answered is not whether or not the model is perfect. Rather, what we want to know is if it's an improvement over other available selection methods.

The major point to remember about discriminant analysis is that it is a mathematical modeling technique which uses past experience to separate things into two or more groups.

Case Studies on the Use of Discriminant Analysis in GAO

The following three case studies provide examples of how GAO has evaluated or utilized discriminant models in its program evaluation and management audits.

The first case discusses how GAO evaluated discriminant models used by IRS to select returns for audit.4 The second discusses how GAO used discriminant analysis to determine which factors explained satisfaction on the part of the claimant in job discrimination suits.5 And the third describes how GAO, in cooperation with the Government of the District of Columbia, developed a discriminant model to identify recipients of welfare payments who were either overpaid or not entitled to payments.6

The work discussed here was done by the Systems Analysis Group, a unit of GAO's Financial and General Management Studies Division.

Selecting Individual Returns for Audit

In 1962 IRS began using computers to help select returns for GAO Review/Summer 1979

audit. The approach was to consider auditing returns meeting one of 38 to 50 different criteria; an example of the criteria might be having a ratio of contributions to reported income over a certain amount. The problem with this method was that more returns were selected than IRS could audit. As a result. IRS had to have experienced auditors go through the returns and make the final determination of a return's audit potential. This took a lot of IRS' best auditors out of auditing, and reduced the number of returns which were actually audited.

After several modifications to this system, IRS decided it needed to shift the burden of estimating audit potential from its skilled auditors to the computer; the computer would be used to determine to which group a return belonged—those needing audit or those which did not.

There was no need for IRS to sample returns to develop an experience base for modeling return selection. Management had been auditing samples of individual returns periodically in an effort to measure changes in the percentage of taxes paid voluntarily. This was done by auditing every line on randomly selected returns and comparing the amount per IRS audit with the amount reported by the taxpayer. The data collected during these audits was turned over to a contractor for the purpose of determining the feasibility of a discriminant analysis based selection system. The study showed such models were useful and a system incorporating discriminant models in return selection was fully implemented by IRS in 1970.

In 1973, the Joint Committee on Internal Revenue Taxation of the U.S. Congress asked us to look into how IRS selected individual returns for audit. They were particularly interested in our evaluating the newly adopted discriminant analysis models.

Our evaluation started with an examination of the appropriateness of discriminant analysis to the audit selection problem. Our initial work focused on the goals, design, sampling and data collection methods used to develop the models. Once satisfied on these points, we shifted our emphasis to the ques-

tion of whether the models were an improvement over past selection methods; in other words, did the discriminant models really work?

We found that IRS had already tested the models finding that: (1) the returns selected using the models produced a higher yield per audit than those selected using prior methods. (2) the models outperformed two other computer techniques and did as well as a much more costly manual selection process in terms of yield per audit, (3) the models were found to be vastly superior to random selection, and (4) new discriminant analysis models introduced in 1973 showed improvement over the prior models in both average dollar return per audit and in reducing the frequency of audits of returns filed correctly. Additionally, GAO independently tested several of the models. Since they were designed to rank returns as to audit potential, we used correlation analysis to see if a relationship existed between the model scores and whether IRS increased the amount of taxes owed as the result of the audit. Quoting from the report:

Of the seven formulas for which a sufficient number of returns were audited to provide a basis for analysis, two exhibited a very high correlation, four a high correlation, and one a moderate correlation. This indicates that the higher the score on a return, the more likely it is an audit of that return will result in a tax change.

As indicated, we did not develop the models discussed here, but we learned a lot about developing, testing, and implementing discriminant analysis models from our IRS experience.

Explaining Complainant Satisfaction in Equal Opportunity Complaints

The Equal Employment Opportunity Commission (EEOC) is responsible for conducting both the investigation and conciliation of employment discrimination complaints. In evaluating this activity, GAO was interested in determining which of EEOC's functions and pro-

cesses had the most influence in explaining complainant satisfaction. To find out, we took a random sample of 285 (out of 1,235) successful settlements and subjected them to analyses. Complainants were mailed questionnaires asking about their feelings and experiences with the settlement process. The questions covered their degree of satisfaction with the settlement. the process, and EEOC personnel. Most of the respondents (62.2 percent) told us they were satisfied with their settlements. However, it was important to our evaluation to know what caused some complainants to be satisfied while others were not.

Using the questionnaire results, we were able to explain almost 80 percent of the satisfaction of the respondents. The following table shows the factors from the resulting model and their importance in explaining satisfaction.

est public assistance programs of the Federal Government. The program, administered by the States and the District of Columbia, provides financial assistance to needy children and their parents or relatives to encourage the care of dependent children in the home.

The system works as follows. Eligibility is determined when an individual applies for assistance. When the application is received, case workers interview the applicant and make independent verifications of the data supplied. If the person is found eligible, the amount of the monthly payment is established and payments begin. However, because of possible changes in eligibility-someone in the household becomes of age or becomes employed-The Department of Health, Education and Welfare requires semi-annual reviews of all cases to reestablish eligibility. At the time of our review, the District of Columbia

require that a random sample be taken of each State's caseload every 6 months and that these cases be audited in depth. The purpose of this audit is to provide quality control information on the errors in the caseload through a review independent of the one used in the normal recertification process. We were able to use this data not only to develop our models, but just as importantly, to test their reliability when used on cases other than those on which they were developed. The results of our efforts are guoted from the cover summary of the report:

Working together, GAO and the District of Columbia's Department of Human Resources developed three formulas to identify welfare cases that have a high probability to be in error. The formulas assign computer-derived numerical scores to cases that need to be reviewed and rank them in order of their error potential.

The District started using one formula in May 1977. Over a year's time, erroneous welfare payments will have been reduced by about \$3.5 million or nearly double the reduction in erroneous payments that could have been obtained using the District's procedures.

CUMULATIVE AMOUNT OF EXPLAINED VARIANCE 1. Whether claimants were satisfied with money settlement. 67.52 2. Whether EEOC personnel helped claimant understand conciliation process. 71.91 3. Whether EEOC personnel helped claimant understand the investigation process. 75.62 4. Whether claimants felt their settlement took shorter or longer than expected. 77.62

During the review, EEOC officials indicated that they believed the length of time it took to settle the case would be the most important factor in determining claimant satisfaction. Our analysis showed that while reducing settlement time would have some impact, the claimant's satisfaction with the process was much more dependent on receiving a money settlement and on how well they understood the EEOC process.

This disclosure provided important insight into where EEOC should direct its resources in attempting to improve claimant satisfaction levels.

Reducing Welfare Payments with Discriminant Analysis

Aid to Families with Dependent Children (AFDC) is one of the larg-

had continually failed to meet the 6-month requirement for reviewing cases because of insufficient staff. According to District officials, cases were selected for review alphabetically and only about 20 percent of the caseload was examined in any given 6-month period.

We saw a situation very much like that faced by IRS in the 1960's in that there was more work to do than resources to do it with. We felt that a feasibility study of selecting cases to review using discriminant analysis was warranted. We discussed the project with officials of the District of Columbia who not only agreed to the idea, but assigned one of their staff to work on the project with us.

We were able to avoid a lengthy and expensive data collection effort by utilizing the results of quality control audits. Program guidelines

Conditions Necessary for Using DA

As discussed above, use of discriminant analysis in an audit begins with the need to distinguish among members of two or more groups. In addition to need, the auditor must also have

- historical data on the groups to be analyzed,
- a computer system to perform the mathematical calculations, and
- training in quantitative techniques to plan the data collection, analyze the data, and interpret the results.

Many organizations engaged in auditing have access to one or more of the commercial computer packages which include discriminant analysis programs. For example, GAO uses the programs from the Statistical Package for the Social Sciences, developed by the National Opinion Research Center at the University of Chicago. A small but increasing number of auditors have the required statistical skill to do the analysis. Those that do not can consider obtaining assistance from other groups in their organizations or obtain the assistance of consultants.

More formidable problems are usually faced in trying to obtain the needed data. For discriminant analysis to be feasible, the historical data must (1) be representative of the "population" to which it will be applied, (2) contain an adequate number of cases belonging to each of the groups of interest, and (3) contain measures for each case on characteristics on which the groups are expected to differ.

The collection of historical data is greatly facilitated if it is already available in a computer-readable form, as it was for the AFDC job. When the necessary data is not available in that form, questionnaires or pro-forma (standardized) workpapers, called data collection instruments, can be used to facilitate the collection of historical data.

In addition to the historical data needed to perform the discriminant analysis, it is highly desirable, although not mandatory, to have data on additional cases in order to test or verify the results of the analysis. On the IRS assignment, GAO tested the concept on returns that were not used to develop the selection models. On the AFDC assignment, the availability of quality control data on a large number of AFDC recipients enabled GAO to test the discriminant analysis scoring system before it was implemented. This testing or validation process helped convince AFDC officials that the method developed to select cases for review would be a great improvement over their existing methods.

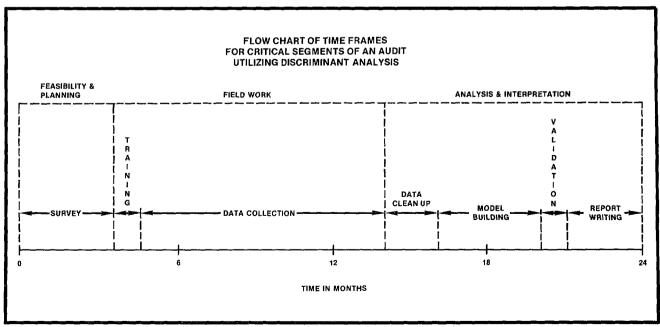
The flow chart below shows how the steps in developing discriminant models are related and provides an example of time frames required on a job making extensive use of the technique, where the data is not already computerized or centrally located.

The time frames shown below illustrate what might be considered the "worst case." If historical data is already computerized and there are few characteristics on which the groups are expected to differ, these time frames can be cut dramatically.

Conclusion

Discriminant analysis is but one of the quantitative techniques available to auditors performing program evaluation and management audits. While the concept of discriminant analysis is not hard to

understand and its implementation. once the models are developed, is not difficult, development of the models themselves is quite technical. The understanding and use of this and other related techniques as audit tools require more than native intelligence. Auditors interested in going beyond general solutions to problems they identify should consider quantitative techniques and the role they can play in recommending management improvements. Becoming comfortable using such techniques may be a time-consuming process, but it's one that will pay large dividends to auditors and their organizations.



Leslie Megyeri

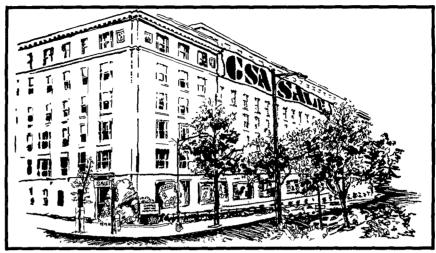
Mr Megyeri is an auditor with the Procurement and Systems Acquisition Division. He is a member of the District of Columbia Bar and a CPA (Maryland). His articles have appeared in the Federal Accountant, The GAO Review, National Contract Management Review, Public Contract Newsletter, and the West Virginia Law Review.



Jim Wiggins

Mr Wiggins is a Procurement and Systems Acquisition Division core group advisor for Federal central supply agencies and grants. He also was with the Washington regional office and the Secretary of the Senate. He graduated from the University of South Carolina in 1973 with a BS degree in marketing and in 1977 received an M.S. degree in public administration from George Washington University.

Should GSA Be the Sears Roebuck of the Federal Government?



Are you in the market for a trail-bike, snowmobile, boat, or camper? Or, how about an \$8,000 18th century bookcase and china cabinet? All of these items and millions more are purchased or contracted for by the General Services Administration (GSA) and are readily available to the Federal agencies GSA sells to. Currently, over 8.5 million items are offered to Federal agencies—accounting for about \$3.4 billion in sales annually.

GSA was established in 1949 to be the Federal Government's central supplier of common-use items such as pens, paper clips, and other office supplies. However, in reality, GSA supplies its Federal customers with a range and variety of items that would rival the Sears Roebuck catalog or those of any other giant commercial enterprise.

Has GSA gone too far in attempting to supply the Federal Government? This poses a fundamental question being debated within GSA today: What is the proper role of GSA? Should it be strictly a service organization supplying whatever its Federal customers want, no matter what the price? Or, should GSA be the cost-conscious, prudent purveyor of common-use items?

GSA as a Department Store In recent years, GSA's focus has been on customer service. With this objective, GSA has tried to operate much like a chain department store. The concept is that customer agencies have money to spend as they see fit, and it is GSA's job to maximize sales to them. GSA measures its success by increasing agency purchases from GSA and decreasing purchases from the open market. The hypothesis is that GSA can supply items to the agencies cheaper than the agencies can buy for themselves on the open market.

GSA's evolution into a highly diversified merchandising outlet has reflected the philosophy of its administrators. For example, Mr. Jack Eckerd, who headed GSA from November 1975 to February 1977, was the chairman of the Jack Eckerd Corporation, which operates 465 drug stores and 27 department stores. High volume-high turnover is the name of the game in such firms. Shortly after taking office at GSA Eckerd stated that the agency was not getting as much business as it could handle and that it had not properly "sold its products." It was Eckerd's goal to recapture business the agencies were giving to the open market.

Multiple-Awards Schedules Attract

GAO Review/Summer 1979

Buyers

GSA's efforts to capture open market purchases have resulted in its supplying great proliferation of items. However, these efforts to expand sales have raised serious questions about GSA's merchandising strategy.¹

For example, GSA's most successful method of attracting agency business has been its multipleaward schedule program. GSA provides agencies with a wide selection of products by awarding contracts to multiple vendors who offer functionally similar but different products at various prices. Each agency can then buy whatever particular make, model, or style of product it wants. For example, there are 72 vendors offering occasional tables, 61 vendors offering upholstered sofas and chair groupings, and 27 contractors offering baseball clothing and footwear. Currently, over 8 million items are offered to Federal agencies through GSA multiple-award contracts.

Widespread Criticisms of GSA

GSA's efforts to increase volume by offering more products through multiple awards has been criticized by GAO, the Congress, and the media. The issue is that noncompetitive multiple-awards contracting results in higher prices. Under the multiple-awards program, GSA establishes a minimum acceptable discount, called a benchmark. Contracts are awarded to any vendor who is willing to meet the benchmark. Because price competition is not the basis for award, multipleaward product prices are often higher than those paid by States and commercial firms for the same item. For example, the Washington Post made recent price comparisons and found that a local retailer was selling hand-held calculators to the public cheaper than GSA's multiple-awards prices for identical products. GSA and GAO studies have shown that competitive awards to a single low bidder could save an average of 20 percent, or up to \$360 million a year if all multiple awards were competed. Another criticism is that agencies often choose the most expensive, top-ofthe-line product when a lower Surface

priced product will meet users' needs. Agencies are not as budget conscious as the buyer spending his own money.

Although multiple-awards mean higher prices, it is argued that GSA's function is to provide agencies with what they want, and if it fails to do so, agencies will go elsewhere to purchase their favorite products thereby reducing GSA's sales volume. GSA officials believe it would be inconsistent with their "service oriented" mission to limit choice to the lowest competitively priced products.

Pervasive Influence of Vendors' Representatives

Vendors disclosed that multiple-award contracts require aggressive sales efforts to insure that agencies buy their particular line. They see the multiple-awards schedule as a "hunting license" to get more sales from agencies. Also, vendors note that maintaining the required sales force adds significantly to the product's price.

Most salesmen acknowldege that price is often secondary. Agency officials consider the vendor's service to be of primary importance in product selection. Moreover, these officials try to spread the business among vendors to appease the many salesmen who frequently call on them. Vendors claim that when GSA places their item on the schedule, it is "telling" the agencies to buy them.

Vendor salesmen depend on persuasion, as well as other sales techniques. The propriety of some of these efforts is questionable. Although no one admitted to such tactics, salesmen accuse competitors of providing Government officials with lunches, out-of-town trips, and discounts on appliances (TVs. radios, and so forth). These practices may be against vendors' policies, but unethical practices are inevitable in a highly competitive environment where price is not paramount. Since GSA provides little product evaluation data, agency officials must rely heavily on vendor representations.

Fraudulent Practices Surface

GSA's intense efforts to increase sales can also be linked to recent scandals involving GSA office supply stores serving Federal agencies. For example, one former selfservice store manager, indicted for taking kickbacks from office supply companies, told the Washington Post that his job was to turn over as much merchandise as possible. Pressure to "sell more goods" came from GSA supervisors who, he said, based promotions on the sales volume of each supply store. This manager, one of 27 managers, assistants, and contractors indicted for giving or taking bribes, added that he never learned why GSA was interested in "pushing" more merchandise rather than less, but knew he would be reprimanded for failing to do so.

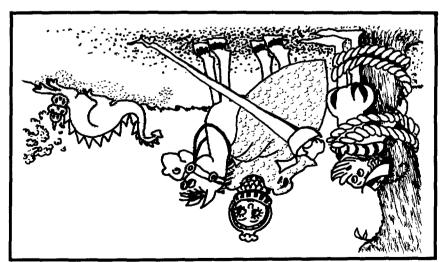
The Pendulum Swings

Should GSA operate as a merchandiser like Sears Roebuck and other commercial firms where emphasis is placed on sales expansion and rapid turnover? Do the same assumptions on how we as consumers spend our money in the open market apply to Federal agencies spending taxpaver money? These questions, along with taxpayer scrutiny over how the tax dollar is being spent, have resulted in a rethinking of GSA's volume-oriented approach.

Recently, GSA has begun eliminating luxurious and frivolous items from the multiple-awards program and has placed an increased emphasis on competitive low bid contracting. These actions suggest that GSA's management recognizes that GSA should supply only those products which will meet its customers' needs for the least cost and that these products should be purchased using methods that will result in the lowest possible price. Although there are formidable obstacles to this approach, the pendulum is at least beginning to swing. GSA should not and cannot be a Sears Roebuck and Company.

¹ A recent GAO report entitled "Ineffective Management of GSA's Multiple Award Schedule Program—A Costly, Serious, and Long-standing Problem," PSAD-79-71, May 2, 1979, discusses numerous issues of the multiple award system.

ERA: Myth or Reality?



Adapted from a speech given by Ms. Oneglia, Director of the Department of Justice's Task Force on Sex Discrimination, at the March 14 Comptroller General's luncheon

Stewart Oneglia

stitution guarantees those protections of your rights and immunities that you already have. If you were a woman, voting was not one of those rights and, therefore, you certainly did not gain it through the Federal Constitution.

and then sent them all home. the jury to bring in a guilty verdict, amendment did not apply, directed her guilty. He ruled that the 14th opinion out of his pocket and found way, the judge pulled a written prevail or persuade the jury in some ney who argued for 3 hours, might her lawyer, an indefatigable attordetense. And when it appeared that permitted to testify in her own a 3-year sentence. She was not right to do so, a crime which carried tor attempting to vote without the and brought before a criminal court enfranchise and was charged with Amendment, attempted to selfforemothers of the Equal Rights Susan B. Anthony, one of our

The same analysis applied in an illinois case that denied women the right to practice law. In that case the Supreme Court said:

This case assumes that it is one of the privileges and immunities of women as citizens to engage in any and every profession, occupation or employment in civil life. It cannot be assumed that this has ever been established as one of the fundamental privileges and immunities of the leges and immunities of the sex. On the contrary, the civil

GAO Review/Summer 1979

On March 22, 1972, Congress passed ERA, the Equal Rights Ammendment to the Federal Constitution. It is now going through the States for ratification. The wording is short and simple. "Equality of rights under the law shall not be denied or abridged by the United States or by any State on account of sex." Section II says, "The Congress shall have the power to gress shall have the power to enforce by appropriate legislation the provisions of this article."

To date, 35 States, representing To date, 35 States, representing

To date, 35 States, representing To date, 35 States, representing To percent of the U.S. population, have ratified ERA. It moved very quickly in the first few years after now stalled three States short of the number required for amendment. The joint resolution that the Congress submitted with ERA gave it? Years to be ratified. However, in Cotober 1978 the deadline was extended for 39 months from 1978 to October 1978 the deadline was extended for 39 months from 1978 to

March 1981.

Why do we need an Equal Rights
Why do we need an Equal Rights of
supposedly protects the rights of
all of us, anyway? Because the
Constitution does not prohibit distinctions to be made on the basis of
sex in the same way that it forbids
sex in the same way that it forbids
of

For example, the Constitution did not give women the right to vote until the Congress passed a special amendment, and that wasn't until the 20th century. In a test case, the Supreme Court said that the Con-

law, as well as nature herself, has always recognized a wide difference in the respective spears and destinies of men and women. The harmony, not to say identity, of interests and views which belong or should belong, to the family institution is repugnant to the idea of a woman adopting a distinct and independent career from that of her husband. So firmly fixed was this sentiment in the founders of the common law that it has become a maxim of that system of jurisprudence that a woman has no legal existence separate from her husband.

In other words, no woman should work outside of the home, regardless of her own personal wishes.

So then you might wonder what happens to the poor unfortunates who don't have another identity to merge with, that is, those women who are unmarried or widowed. The court deals with that and recognizes that it could occur, saying that:

It is true that many women are unmarried and not affected by any of the duties, complications, and incapacities arising out of the married state. But these are exceptions to the general rule. The paramount destiny and mission of women is to fulfill the noble and benign offices of wife and mother. This is the law of the Creator.

I guess all you lawyers know that there is a natural law and this must be it: "The rules of civil society must be adapted to the general constitution of things and cannot be based upon exceptional cases." So therefore, the law does not take into consideration the exceptions.

Both of these cases that I am talking about occurred long after black men were granted the right to vote and the right to practice their profession. In fact, in 1948, only 6 years before the Brown versus Board of Education historic school desegregation case, the courts said that the State of Michigan could deny women the right to bartend. The State had passed a law saying that women could not be bartenders unless the bar was owned by their husbands or fathers. Two women

who were running and earning their livings from bars challenged the law. The Court said:

The fact that women may now have achieved the virtue that men have long claimed as their prerogatives and now indulge in vices [and I guess running a bar is considered one of those] that men have long practiced, does not preclude the State from drawing a sharp line between the sexes.

In other words, the Court upheld, in our lifetime, the law that permitted Michigan to forbid women to run bars. Yet 30 years before, the same Supreme Court had said that the right to work without discrimination on the grounds of race and nationality, is the "very essence of the personal freedom and opportunity that it is the purpose of the 14th amendment to secure." The 14th amendment analysis, therefore, distinguishes between its application to categories of race and nationality and categories of sex. In other words, it is permissible to discriminate on the basis of sex where it is not permissible on the basis of race.

Long after slavery was abolished, women, especially married women, were denied by law practically all of the freedoms that black men were granted after the Civil War. In fact, an analysis done by the Justice Department's Task Force on Sex Discrimination found that there was not one disability attached to slaves that was not also attached to any respectable married woman, whether she was a housemaid or a millionaire's wife.

The similarity between the legal positions of women and slaves was even recognized by the Supreme Court in 1973:

Our statute books gradually became laden with gross stere-otype distinctions between the sexes and indeed, throughout much of the 19th century, the position of women in our society was, in many respects, comparable to that of blacks under the pre-Civil War slave code. Neither slaves nor women could hold office, serve on juries, bring suit in their own names, and married women traditionally were denied the legal capacity to hold and

convey property or to serve as legal guardians of their own children.

This inability to own property, for example, is one of those particular badges and incidents of slavery that the 13th amendment attempted to eradicate because slaves, as property themselves, could not own property. By virture of the legal fiction that husbands and wives were one and the one was the husband, the legal right to possession and control of all real property owned by a wife or afterwards acquired by her during the marriage, was vested in the husband for the duration of that marriage. During this time she would have no claim on him for any benefit derived from the property and no hand in the management of the property. If children were born of the marriage, and even if they died in infancy, the term of the husband's interest was extended, and he retained a life estate in the property until after her death. This principle still carries over in some State laws throughout the country.

In the cases of personal property-stocks, bonds, money, clothes, etc., a wife owned only her paraphernalia. This included those clothes upon the wife's back, literally, her very personal possessions, perhaps her wedding ring. her personal jewelry (not that of any great value), her hand bag, and so forth. All of the rest of the personal property in a marriage that belonged to the wife or was acquired by her after the marriage belonged absolutely to the husband. Furthermore, it was absolutely lost upon the marriage, passing forever into the husband's estate, whereas the real estate could come back to the wife's estate.

Another of the disabilities of slaves was their inability to hire out for their services. Likewise, since the wages of a married woman who was permitted to work outside of the home were considered personal property, and that property passed to the husband absolutely, a married woman could not hire out her own services. Rather, she was hired out by her husband and her wages would not come back to her husband.

Another badger incident of slavery is the inability to make contracts. Presumably, this disabil-

ity extends to married women. Because they could not own or control property, they did not have anything to contract about. Actually, the position of slaves might even have been better than the position of wives since the master could terminate a master-slave relationship if he chose, whereas only the State could terminate a marriage. Divorce was very limited and only allowed under certain circumstances. Even though both parties wanted out of the marriage, they would not be able to get a divorce unless the State agreed. And in most cases, the State legislature had to pass a special bill to permit the divorce.

Finally, laws governing the right to control children, another disability, today has of course changed. But under the common law, the right to the custody of the children belonged absolutely to the father. He controlled the wife's visitation rights and he could name the child's guardian, who would not necessarily be the mother. This was such a firmly fixed rule that it applied regardless of the father's misconduct or inability to care for the children.

It wasn't until 1971 (that's really within our lifetime) that the court relied upon the 14th amendment to strike down any kind of a law that discriminated on the basis of sex. In this case, it was an Idaho law dealing with choosing an administrator for a deceased person. The law said that if two persons (one male, one female) are equally, similarly situated in realationship to the deceased (in this case the parents of a child), then the man would automatically be chosen as administrator. The administrative reason that the State gave was, "Well probably the man would be more experienced and would know more about running business. Anyway, we might as well save all the time of having a hearing to see who is the best qualified."

When that case got to the Supreme Court, it found that this was an *irrational distinction*, and that women were being denied equal protection of the law under that statute. But this analysis is almost never used. And this is the heart of the Equal Rights Amendment. The court has repeatedly declined to look as strictly at laws

or actions that discriminate on the basis of sex as at those that discriminate on the basis of race. In fact, very recently (I think it was 1973) three of the Justices, Justice Powell with the Chief Justice and Justice Bergman, Blackman going along, said that it would be inappropriate to as long as the Equal Rights Amendment is passing through the States. So until it is passed, these three Justices felt that it would be inappropriate to apply that strict, equal protection analysis to a sex discrimination case.

Ironically the opponents of ERA are saying, "Wait a minute, we've already got a 5th amendment, a 14th amendment. What more do you need?" Well, apparently the Chief Justice thinks we need more.

The equal protection analysis has for years followed a two-tier approach in legalistic analysis. And this is the main reason we need an equal rights amendment, separate and distinct from the rest.

Most classifications putting people in any kind of categorybecause they're children, because they're old, because they're property owners, because they're not property owners—are upheld in a law if they pass the test of being rationally related to some legitimate government objective. That was the analysis in the Michigan bartenders' case. In other words, it was rationally related to a government objective, of say, preserving the morality of women. If a woman was tending bar and she was alone. possibly her morality might be questioned or threatened. Therefore, the State aim of preserving the morality of women was rationally related to that purpose and, therefore, the statute was held constitutional. That's the type of analysis.

When you have a "suspect" classification such as race, the classification must be compelling to an important government objective. So, as you see, you can look at things differently. But the catch is getting the classification called suspect, because then it is very difficult to justify classifying on that basis.

What has come up in sex discrimination cases is something in the middle. The court has developed a whole new formulation and says the classification must be substantially related, which is apparently stronger than rationally, but not nearly as much as compelling, to an important government objective. This new standard was articulated in a case before the Supreme Court which disputed discrimination on the basis of sex in determining the age at which you let people drink beer. In this case, girls could drink beer at 18, but boys not until 21. The court ruled this law to be not substantially related to an important government objective and therefore, unconstitutional.

The Equal Rights Amendment would replace that intermediate classification of being substantially related with the suspect classification analysis of being compelling on the basis of sex. That is the crux of the real difference that ERA would make.

I know this concern over nomenclature seems overly technical. But the difference is basically in the standard of review. Almost any classification that need only be rationally related is upheld. Where, almost any classification requiring a compelling State interest is found unconstitutional. That is what we are attempting to accomplish through the Equal Rights Amendment.

It is currently very difficult under this middle tier analysis to ever predict how a case is going to come out. We have had some social security cases, several in recent years, extending certain benefits to men. But some justices say that the benefits were directly extended to men, while others say the benefits belonged to the working women and, in turn, were extended to their husbands. But these cases neutralized that statute. In other words, they made the benefits equally applicable to men and women.

On the other hand, we have a couple of other social security cases moving through now and, because we are not sure of the analysis that will be used, we are not sure what the outcome will be. Whereas, if it were a race classification, we could absolutely project that the statute would be struck down as unconstitutional. This lack of predictability is one of the very serious problems that the Equal Rights Amendment would remedy because the court is apparently

unwilling to act decisively while it is waiting for ERA to be ratified by the States.

And there is another aspect. We are depending on piecemeal litigation. And this Supreme Court is divided on sex discrimination. We've got four Justices who think gender ought to be a suspect classification, but have never been able to get the 5th vote. However, if the composition of the Court changed in any way, we might even see a retreat from some favorable decisions that have been passed down within the past 9 or 10 years. Only an Equal Rights Amendment would maintain the ground. Otherwise we are depending on the composition of accord of any given time, who is present, who hears the case, and who had to disqualify himself.

Another serious practicable problem that results from this unsettled state of the law is the absence of a clear mandate that allows foot dragging in State legislatures. It allows foot dragging even to eliminate patently discriminatory laws. For example, there is a program that is part of welfare-Aid to Families with Dependent Children. (AFDC) One portion of AFDC provides aid to families with an unemployed father. The program applies to those families where the father had been the breadwinner, was removed from the workforce. and therefore could no longer support the family. That family could then go and receive welfare without the father having to leave the family. Now if the mother had been the breadwinner and the father had been in prison, was a student, was a househusband, etc., and if the mother loses her job, that same family is not eligible, purely on the basis of the gender of the breadwinner. Now that seems clearly an unconstitutional statute in the sense that it makes an absolute distinction based on nothing more than the gender of the participant. However, there are now cases like these going on all over the country. Important resources are being used. States are involved, and the Federal Government is defending the cases. They are going to end up in the Supreme Court. The legal process is going to take years. And yet, with an equal rights amendment, a decision on these cases would have been very obvious if this program was the type that would not survive a suspect classification analysis.

The formulation that I gave you comparing women to slaves has been cured by laws in many separate States, in certain areasin areas of employment, some areas of credit. But these have been done in a piecemeal way. Although most States have passed what we call the married women property acts, which allow women to contract for and own property and so forth, in many States some of the real estate disabilities are still in effect. Likewise, some of the management of property disabilities remain. There are other domestic relations or marriage laws still in effect which have not been changed and brought out of the dark ages as much as we would like to think. And if we can't rely on State and Federal statutes to do this, neither can we rely on the Constitution. There is no recognition in the Federal Constitution that men and women are citizens in the same way. ERA would change this.

And what would be the practical effect? I'm sure you all have seen Phyllis Schafly on the television and heard the arguments. Most of the debate has been completely dishonest as to what the equal rights amendment would do. We have heard ERA opponents say there will be coed bathrooms, homosexual marriages, abortions, family breakups, and no more rape laws. Absolutely none of these things fall from the Equal Rights Amendment, Absolutely none, The debate has not taken place over what the Equal Rights Amendment would in fact do, but only over what the opponents are saying it will do. If you go back and read the words of the amendment again, you will see that in some cases it isn't even related to those particular issues. So we are dealing with the false issues of the opposition and yet have a lot of guidance as to what the Equal Rights Amendment would do.

To illustrate, we have 16 States that have such an amendment to their Constitution. I am from the State of Maryland, one of the 16. I know for a fact that Phyllis Schafly has said that the University of

Maryland requires the women to stay with the men in the dormatories. That is not true. I know for a fact: my daughter goes there. She stays in her own room. They do have coed dormatories, but not mingled rooms. And residing in a coed dorm certainly is not mandatory. The University has absolutely separate bathrooms for men and women.

Maryland, a fairly activist State, passed an equal rights amendment to its Constitution in 1972. The State has been in the forefront of bringing its own laws into conformance with its equal rights amendment, and none of the opposition's fears have been realized.

Not only do we have the 16 States which passed their own equal rights amendments, ERA also has a very extensive legislative history. It has to be one of the most talked about amendments to the Constitution. We have reports on both sides and a fair amount of unanimity in the final report that analyzes what the Equal Rights Amendment would do.

What will happen to laws which do not conform to the Equal Rights Amendment? Well, there is a choice. You can either expand the law to offer the protection or the benefit to both classes or you can nullify the law. Very recently the Supreme Court, in the Ore case, tested a statute restricting alimony only to women. I think there were about 15 States with such a statute. The other States award alimony very much in conformance with an equal rights amendment analysisto whichever party needs it. If one spouse has worked only in the home and doesn't have the ability to get into the workforce, then the alimony is paid to that person. In Maryland, 12 years before the State passed the equal rights amendment, a trial court awarded alimony to a blind, disabled man whose wife had been the breadwinner. The Supreme Court recently declared it unconstitutional for the State of Alabama to allow alimony only to be paid to a woman and has given the State the opportunity to decide how to extend the statute to cover the categories.

Another area which has been linked to the Equal Rights Amendment and that has been clouded with false issues is personal rela-

tionships. ERA is going to break up families; it is going to say men can't support their wives any longer; it is going to say women have to support their husbands; it is going to say all kinds of things. Well, we are all familiar with the 14th amendment analysis. Again laws apply only to State action. They apply to what the Federal Government does or what States do; they apply to what the Government does. They do not apply to any interpersonal relationships, customs, or anything else. Quoting Senator Marlo Cook:

It is important to note that the only kind of sex discrimination that ERA forbids is that which exists in law. Interpersonal relationships and customs of chivalry will, of course, remain as they always have been, a matter of individual choice. The passage of this amendment will neither make a man a gentleman nor will it require him to stop being one.

So the basic principal of the Equal Rights Amendment is simply that men and women cannot be treated differently by the law solely because of their sex. That's all it says and the analysis is very easy to follow. The red herrings that have been brought up in the debate should be dealt with as they are—red herrings—and not serious matters for discussion.

o.



Betty Poel

Ms. Poel joined GAO in 1976 as a subject specialist for Energy and Minerals Division. She received her B.A. degree from Michigan State University and her M S L.S. from Catholic University of America in Washington, D.C. She is currently Chief, Library Services Section C.

Responding to Information Needs

Responding to Information Needs

Libraries traditionally offer such services as acquiring, cataloging, and circulating publications and performing literature searches upon request. GAO's Office of Librarian (OL) is no exception; it offers these and many other services to all GAO employees. However, through a cooperative arrangement between OL and the Energy and Minerals Division (EMD), EMD staffers receive services beyond those which OL provides to the rest of the agency.

In recent years, EMD expanded from a small group in the Office of Special Programs to the large division that it is today. And, as the division grew, so did its publications collection, which became unmanageable. EMD realized that the importance of its issue areaenergy and minerals-required that its publications be organized, and that reference service be provided. Therefore, the division requested, and received, a librarian from OL to work exclusively with EMD. Initially, the information services were based upon EMD's immediate needs-cataloging and organizing the existing collection, developing the reference collection, providing reference services to a dispersed staff (At this time, the division was located two blocks away from GAO in the Chester A. Arthur building, and over 50 percent of its staff was located at 5 audit sites in D.C. and Maryland.), circulating publications, and performing literature searches. As other needs were expressed by the staff or perceived by the librarian, services were added or changed. Also, special projects were undertaken. For example, all EMD staff at audit sites and in the GAO building were oriented to library services and resources, and some systematic current awareness services were initiated.

As the existing collection was cataloged, special accession lists were published, primarily for EMD staff members at audit sites who did not have the opportunity to

browse through the collection but who did need to be aware of which publications were available.

As the EMD staff increased and plans were finalized for the division to move from the Arthur building to the GAO building, a library team was formed to augment the scope of information services. Currently, the team is comprised of three librarians, whose staff years are provided by EMD, and one graduate library science student, whose staff year is provided by OL. This team devotes most of its time to providing timely and indepth information services to EMD.

Anticipating Information Needs

Planning

Recognizing good planning as a prime factor in achieving effective results, the library team establishes goals and objectives which are consistent with the information needs of the division and with the policies of the library. The team uses the goals and objectives, which are reviewed and revised annually, as a work plan and as a measurement of progress.

Literature Searching

In recent years, computerassisted bibliographic searching has added significantly to the research capabilities of libraries. OL uses six large Government or commercial data base systems, which provide access to current and retrospective literature in approximately 120 files of varying subject content.

EMD staff must submit a decision paper to the Director, justifying continuation or termination of a job, after expending approximately 100 staff days on a proposed audit. Within the decision paper, EMD management requires auditors to cite existing definitive literature in the field as a part of the justification. The Director, EMD, requires a literature search as a condition of

approval of a Job Authorization (Form 100).

The library team has preempted many search requests by systematically performing literature searches for each audit project on the quarterly List of Tentative Assignments and more recently for each project on the "firm start" section of the Job Scheduling and Staffing System. Search results, in the form of a printout of citations and abstracts, are presented to the audit team leader in early stages of substantive work on a project. The audit team then requests library assistance in obtaining selected publications, and retains the printout as part of its working papers.

In some instances, an intended job has been terminated because the literature revealed adequate coverage of the field by other groups inside or outside the agency. In other instances, the focus of an audit job has changed. In nearly all instances, the literature search provides an awareness of and access to significant literature in the field of an audit project.

Reference and Research

Many reference questions are answered by staff librarians through brief interview of the library patron and use of standard reference materials. More indepth requests require extensive, systematic searching in special reference resources or automated retrieval systems. Such requests are referred to one of the subject specialists in OI

OL recently reorganized and assigned primary responsibility for each operating division to a librarian or technical information specialist on OL staff. Each division librarian selects and catalogs materials and provides research assistance to a particular division. This provides each division staff with assistance from someone familiar with its particular information needs and enables each librarian to develop expertise in a subject area and to anticipate special information requirements of the assigned division.

Approximately 24 percent of all recorded reference questions in the Technical Library are generated by EMD staff. The trend toward subject specialization in OL has es-

sentially paralleled special library service to EMD. As a result, OL expects that library service will increasingly improve.

Special Services

Current Awareness

Two of the information specialist's most important tasks are to provide awareness of and access to current publications. EMD, with approximately 65 percent of its staff at audit sites, has special current awareness needs, thus certain services were developed to meet those needs. A weekly issue of tables of contents of selected journals, title pages and tables of contents of new subject-related acquisitions, copies of the monthly Congressional Research Service (CRS) Major Issues System, and a semi-annual list of OL's subject-related journals are examples of current awareness materials provided to EMD staff. The library team also maintains bulletin boards, provides special services at the request of the EMD director, and provides special routing of CRS Selective Dissemination of Information (SDI) cards to the division.

Auditors can then avail themselves of the various publications to which their attention has been drawn, through OL or through use of audit site libraries.

Orientations

The library team conducted nine large-scale orientations to library services and resources for all EMD staff in August 1978. They consisted of OL's slide/tape presentation, an oral briefing on services offered to EMD, and a demonstration of possible uses of selected reference resources in the Technical Library. The team has noticed increased use of reference resources since the orientations were completed. New EMD staff members are invited to similar orientations which are now held quarterly.

Special Projects

EMD frequently uses the librarians' skills for assistance beyond the usual scope of information service. For example, audit sites have requested help in centralizing information materials for easy access and requested identification and provision of lists of key reference materials. Also, a librarian accompanied a team from EMD's Energy Information Branch to survey two technical information complexes in Oak Ridge, Tennessee, to determine if duplicate effort existed between them and to determine whether an audit was needed.

EMD receives extensive media coverage. *EMD in the News* is a monthly issue of periodical articles which cites EMD reports, and is distributed to EMD staff, regional offices, the Comptroller General and Deputy. It is prepared by a librarian who also writes the recently added "highlights" page.

The library team, by request, is preparing "National Energy Policy: A Selected Bibliography" which will be issued by EMD as a staff study in autumn 1979.

Effects on OL and EMD

Statistics compiled by OL indicate that EMD generates approximately 24 percent of all reported reference requests, 15 percent of all interlibrary loan requests, and 50 percent of all requests for publications from the CRS SDI service. On-line data base searching indicates that 25 percent of all computer-assisted bibliographies are performed for EMD. Thus, EMD's use of the library has a significant impact upon OL's budget and human resources. OL staff obtains publications by processing interlibrary loan and CRS SDI requests, orders books and reports requested by staff or library team, and processes and circulates all library materials. Additionally, OL trains and develops the EMD library team as well as OL staff.

While quantity is not evidence of quality, OL considers the degree of use of library services and resources as an indication of EMD's satisfaction.

OL instituted "emergency relief service" to EMD to satisfy its information requirements. Thus OL helped fulfill GAO's obligation to audit and publish reports in the issue area of energy and minerals.

A Day in the Life of a GAO Secretary

Peggy Atkinson

Ms. Atkinson joined GAO in 1965. She is a graduate of LaSalle Extension University and Nancy Taylor Business School. She is presently assigned as assistant regional manager's secretary in Chicago.



Have any of you GAO staff ever wondered what it's like being a secretary, a.k.a. a little "MA" (manager's assistant), to an assistant regional manager?

Let me set the scene. Here I sit, thanks to the open-space concept, outside the boss' office, next to bare windows, under glaring fluourescent lights, facing filing cabinets, and surrounded by big; little, and hanging foliage. Of course, I'm near all the ingredients for making coffee. I am in the midst of heavy traffic—phones ringing constantly, staff coming to the files, coming for coffee, coming to the conference room, coming to see the ARM, and coming to see me.

Let's take a Friday—the most exciting day of the week. The day begins. I am greeted with a cheery "Good morning Peggy, we have a rush priority 1 typing that must be mailed today; also please make hotel reservations for me, a single, Government rate, close to the audit side as well as Gusti's and P.W.'s saloon. This memo that you typed in draft form is ready for final typing now, would you get it ready for my signature for mailing today; also a memo came in, where would that be filed?"

The telephone rings. "Peggy, please put me on sick leave today, no make that annual, or maybe I might be in later. Will you please call my supervisor at the site and

tell him that I won't be in." Mind you, this is the end of the pay period and all timecards have been signed and submitted to the ADP staff for entry into the terminal.

Meanwhile, my "little nubs" are typing away, and my mind is in deep concentration trying to decipher the rough draft. When I say rough, I mean rough! It's written in very light pencil, on recyclable paper, with inserts written on the sides of the page, the bottom of the page, or another page. It's stapled, cut, and pasted, and arrows point in all directions. Deletions are marked very lightly, so 1 have difficulty deciding what's in and what's out. And the writing-a's look like o's and vice versa, t's are not crossed. i's not dotted, hanging g's and y's. no punctuation, and words omitted or misspelled. Was the airport covered by a giant frog or fog?

Again, as I begin typing, an auditor walks up to me and says, "If you have time, could you squeeze this in? All I need is a rough draft. I don't need it today, but I do need it by Tuesday. I would appreciate it very much. I know that you are bogged down. When you finish, just put it on my desk. I'm leaving now for the audit site and you have the number."

More auditors begin their questions.

"Did you make my hotel reservations?"

D.C. in a Virginia smokehouse. "Did you finish the priority 1 typing?"
Not yet. It has to wait until I finish the super priority 1, the right-now priority 1, and the "it's all our heads" priority 1.

Yes, you're 30 miles outside

"How many hours were charged to my job code?" Too many.

"Do you have the copy of my T&A?"

Yes, unless that dark, furry thing that lives in the file cabinet ate it again.
"Is the coffee hot?"
Compared to what?
"Did you just fill the pot?"
No, I tapped it with my magic pencil, and it filled itself.
"What's SATO's number?"
"What's our ID symbol?"
"I need these 30 pages

xeroxed."
"I made some corrections on this page. Would you please retype and return it to me?"
"Do you have so-and-so's telephone number?"

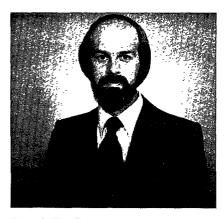
Meanwhile, I get the incoming morning mail, and I begin the initial distribution: priority on top and whatever beneath. Up and away from my desk, I go merrily into the ARM's office, then down the aisle to his assistant's office with the mail. I get halfway between and guess what? The phone rings! I immediately turn around and head for the phone, but it stops ringing. It's the wrong number, or someone else picked it up for me. I turn back, but it rings again. This time it's Washington staff. I write down the caller's name and division, and I proceed to transfer the call with all the pertinent information. Guess what! The line is busy, and I listen to the busy signal, I retrieve the call to inform the party on the other end that the line is busy. I can hear the caller's voice faintly, but the busy signal is loudly sounding on and on, and on, and I am asking the caller would he care to hold, or can the person call him back, or can I take a message. Finally, the busy signal stops, and the caller has hung up. I leave my desk on my way to deliver the message and I am greeted with, "That's the call I have been waiting for. Why didn't you call me?"

Have you ever wondered about this situation in your office—you hear a voice saying, "How do you spell so and so?" and in the background you hear three echos spelling. However, when I hear a voice saying, "I have some typing that must be done today, "I hear only one voice responding—mine.

Well, the day is slowly ending and I am still busy typing with my "little nubs," answering the telephone, and delivering mail and messages. The staff are eagerly preparing for the mad dash to their trains and buses. I hear the shuffling of papers being put away, cabinets being locked, desks being cleaned, buzzing voices in the background getting louder, typewriters moving slower, and doors opening and closing.

As I am scurrying at my desk getting things ready for Monday, I hear in the background, "Peggy, keep typing, keep smiling, and have a good weekend. See you Monday." And I say to myself, *Thank God it's Friday*. However, I did it all! Priority 1 typings were completed; draft memo was retyped, signed, dated, and mailed; hotel reservations were made; mail was distributed; coffee pot was put to rest; and the plants were watered for the weekend. Finally, my "little nubs" stopped.

But it's not all demands and frenzy. My work does not go unrecognized. I am remembered on Valentine's Day and birthdays with candy and flowers. I've received Chicago Bears tickets, flowers from the garden, and luncheons and gifts at Christmas time. Just knowing that I am appreciated makes every hectic day worth it.



Paul D. Lacey

Mr. Lacey, a supervisory management auditor with the Federal Personnel and Compensation Division (FPCD), joined GAO in 1970. He graduated from West Liberty State College in 1970 with a B.S. degree in business administration, majoring in marketing. He has attended graduate school at George Washington and George Mason Universities and has served as an instructor for GAO and the Inter-Agency Auditor Training Center on "Conducting Program Results Reviews."

Will Merit Pay Work?

In a dramatic departure from traditional pay practices in the Federal Government, certain GS-13's through 15's will be eligible for Merit Pay, under title V of the Civil Service Reform Act of 1978. The premise of the merit pay system is to compensate civil servants for contributions to their employing organization—pay based on performance. The merit pay program is intended to be an incentive for better performance, increased accountability, and higher productivity.

The new pay system is to be phased in by October 1981. Considerable latitude and flexibility is being permitted by the Office of Personnel Management (formerly the Civil Service Commission) to enable agencies to design merit pay systems best suited to particular agency needs. But certain aspects of each agency pay system will be similar. GAO is included in this aspect of Civil Service reform.

Agencies must determine which of their GS-13 through 15 "managers" and "supervisors" will be covered by the new system. Although estimates vary, the program could include as many as 75,000 to over 100,000 managers and supervisors at the GS-13-15 range.

The cornerstone of the new process will be the performance appraisal system used to measure how well an individual performs. Supervisors and managers rated high will be entitled to higher pay raises. Those who fail to fulfill the job expectations as set forth in the appraisal process may get only half of the comparability increase received each October by white-collar Federal workers.

The merit pay provisions of the reform act only guarantee that those individuals covered will receive at least half of the annual comparability adjustment due each October. Funds from the other half of the comparability increase, plus funds that would have been spent on within grades and quality step increases for these individuals will go into a merit pay pool. The agencies will then determine, based on the individuals' performance, who receives a pay raise and how

much of a raise they are to receive.

Most of us are acutely aware of the pay ranges set for job classifications under the General Schedule and realize certain disadvantages of pay increases based on time rather than performance. How could one argue against the desirability of converting to a pay program based on merit instead of longevity?

Questions Raised

Herbert H. Meyer, in an article entitled "The Pay-for-Performance Dilemma," raises some interesting questions about merit pay programs. He points out that the principle of merit pay is so logical it seems almost ludicrous to criticize it. It does seem reasonable, that if two people are performing the same job and one person performs at a much higher level, that person should be compensated accordingly.

As with many sound principles or concepts, one of the keys to merit pay success lies with how it is administered. According to Dr. Meyer, despite the apparent soundness of the simple principle on which merit pay is based, experience has shown it doesn't always work so simply. He notes that most salary administrators admit a merit pay plan is very difficult to administer properly. Dr. Meyer also pointed out that, typically, managers are inclined to make relatively small discriminations in salary treatment between individuals in the same job, regardless of perceived differences in performance. Everyone gets about the same size increase. Where distinctions are made, they are likely to be based on factors other than performance, such as length of service, future potential, or the perceived need to "catch up" when one employee's pay seems low compared to that of others in the group.

So what about the principle itself? How could something sound so reasonable yet be so difficult to implement in some situations?

Is Pay Always a Motivator?

One of the problems of showing

the success of merit pay is demonstrating that, with other factors held constant, higher paid persons perform better than those who are not paid so well.

Dr. Meyer indicates there might be an inverse relationship between pay and effort. He referred to some research by Edward Deci of Rochester University which demonstrated that, "to the extent pay is attached directly to the performance of the task, intrinsic interest in the task itself decreases. When pay becomes the important goal, the individual's interest tends to focus on that goal rather than on the performance of the task itself."² Another problem is appraising how well individuals perform their tasks.

Validity of Supervisory Ratings

Numerous articles recently have stated that the "driving force" of the merit pay program will be the performance evaluation or appraisal system used as the basis for awarding pay increases. This would be a problem, as Dr. Meyer points out, in that an individual's pay increases are based primarily on the judgments of his or her supervisor. A merit pay plan rests on the assumption that a supervisor can make objective and valid distinctions between the performances of various individuals who report to him. As anyone who has been evaluated by a supervisor knows, not all employees agree with all aspects of their evaluations.

The extensive use over the last few years of management-byobjectives approaches and other objective setting techniques should enhance the appraisal process, if implemented properly. However, a considerable amount of the credibility and integrity of any merit pay program must emanate from the employees' "belief" that their supervisor or manager can rate them objectively and accurately.

The Thrill of Victory or the Agony of Defeat

Depending on one's view, another problem or benefit of merit pay is requiring employees to compete for pay increases. On the surface there seems to be nothing wrong with that. In fact, the very

essence of our economic and social structure is built upon competition. The competitive drive, it is said, brings out the best in us—and, perhaps sometimes the worst. The merit pay plan will presumably place employees in a win-lose competition.

Dr. Meyer noted that win-lose situations, in turn, have been shown to generate the following types of reactions:

- Competitors are seen as enemies, and thus hostility develops toward them.
- Perceptions of one's self become distorted positively, while perceptions of competitors become distorted negatively.
- Interaction and communication with competitors are decreased.

If these types of reactions have emerged in the past, careful consideration should be given to ways of avoiding or countering them. These reactions could be especially detrimental to an organization that strives to accomplish goals by using a team or task force approach in much of its work.

For example, if different teams or groups are performing similar jobs and striving for similar goals, a cooperative, harmonious relationship is beneficial. Such a relationship fosters information sharing. avoids duplication, and increases efficiency. If, on the other hand, the teams or certain team members are competing for promotions or other rewards, hostility could develop. A colleague might be more inclined to withhold valuable information or indulge in back stabbing, or acts of self aggrandizement. Such behavior could be more dysfunctional than motivational. In such agencies, extensive planning prior to implementation and administration of the merit pay program is critical to over-all program success and future agency accomplishments.

Dr. Meyer cites some research that indicates a merit pay plan can have a threatening effect on the self-esteem of employees. The research cited dealt with self appraisals by professional and managerial personnel. One study revealed over 90 percent of the participants rated their own performance above average. Other studies reflected an

equally high percentage for self evaluations.

One of the conclusions here is that almost everyone thinks he or she is an above-average performer. Such an attitude is not unusual among organizations that pride themselves on hiring above average people and make it a point to let the people know that. This perception can have drastic implications for merit pay. Salary increases received by many people might not be commensurate with what they consider their performance to be. So, the effects of the pay increase on motivation could be more negative than positive.

The points on merit pay covered in this article are not inclusive, nor were they intended to be, of the issues raised in Dr. Meyer's article. It should come as no surprise that not everyone agrees with Dr. Meyer's observations. I have included part of a response to Dr. Meyer's article by Professor Edward E. Lawler of the University of Michigan.³

Professor Lawler responded that "It seems quite clear to me that in some situations pay should be related to performance and in others it should not. The challenge is to figure out when it should be and when it should not be and how to do it in those situations where it should be.

"There is a great deal of research evidence that when pay is effectively tied to performance a number of good outcomes occur: Employees are motivated, turnover occurs primarily among poor performers, and pay satisfaction is higher. These outcomes can improve both the quality of work and organizational effectiveness; thus I believe that careful study should be undertaken to determine whether pay can be meaningfully related to performance before the decision is made not to relate it.

"The comment about Deci's work is interesting. However, I certainly would not call it strong evidence. Most of it comes from laboratory settings and small number of studies. I might note that some other studies have failed to replicate his results; moreover, the data are concerned with how people perform after they have stopped receiving extrinsic rewards, not during the time they receive extrinsic

rewards.

"I agree that competition among employees is usually dysfunctional, but it is not always dysfunctional. It depends on how interdependent jobs are. Further, pay systems do not always cause competition.

"I, too, have found that employees tend to rate themselves highly when self-ratings are asked for. I am not sure, however, that I agree with your solution to this problem, which seems to be to let everyone think that they are top performers and thereby build their self-esteem. It seems to me that true self-esteem is based on an accurate self-image, not a self-image that is artificially inflated."

Can Merit Pay Work in the Federal Sector?

Can merit pay work? Yes, I believe it can, under the right circumstances. But those circumstances are so overwhelming I'm not optimistic about its future for the Federal sector.

To support my point, I would like to draw on two additional articles on merit pay. In all fairness I must point out that these following items are taken out of context. The authors provided sound arguments in their original texts. I note some of the items here merely to illustrate what is required for merit pay to work effectively.

Recently, Professor Lawler stated that, ⁴

- "Unless you appraise performance, unless you do it well, it is impossible to relate pay to performance."
- "It is getting more and more difficult to define a job and what kind of performance we expect and to measure it in a way that is defensible under today's standards of defensible action."
- "Appraising performance and tying pay to it is an extremely emotional issue. It is an uncomfortable activity for both the superior and the subordinate."
- "An extremely high level of commitment is needed if performance appraisal is going to be done well in organizations...By high level of com-

- mitment, I mean the superior must spend hours and hours of time."
- "If the performance appraisal process is to succeed, the mechanics must be well developed...The result of doing it wrong can in fact be more dysfunctional than not tying pay to performance."
- "It is not an easy process to make it work, it takes years to develop and to run efficiently."
- "Performance appraisal and merit pay have to be administered from the top down. No one can be exempt from it."

These were only a few of the points Professor Lawler made. Some other standards for success are provided by C. Richard Farmer, General Manager for the Armstrong Cork Company.⁵

Mr. Farmer has written that merit pay programs can work. He said to be effective, however, organizations must put their total remuneration kit in order and sharpen all of their compensation tools. That could be a tall order for some agencies.

Mr. Farmer also noted:

- "A merit pay program cannot cover up an out-of-date job evaluation system or salary structure. Consequently, position descriptions, the cornerstone of these structures, must be kept current."
- "Performance appraisals are another tool essential to a viable merit pay program. The basic objective of a merit pay program is to pay employees at the level in their salary range for their job grade that corresponds to their performance. Performance appraisals should be shown to and discussed with each employee."
- "Merit pay programs should enable an outstanding performer to receive a salary that is 40 to 50 percent greater than the salary paid to a minimally satisfactory person assigned to the same job and at least 20 percent greater than the salary paid to an average performer."
- "Merit pay programs should not be used as a catchall for

- rewarding employees for a multitude of justifiable pay elements such as weekend or overtime work."
- "Merit pay should not be used to provide shift or geographic-area differential payments or to maintain a minimum differential between a first-line supervisor's salary and the salary of the highestpaid subordinate."
- "To maximize motivation, a merit pay program should reward employees for their unique contributions or significant achievements on a timely basis. The person responsible for allocating merit increases must therefore be at a level of management close enough to the employee to really be aware of his current performance."

It's clear that Professor Lawler and Mr. Farmer agree on several things that comprise a successful merit pay program. The question is, "Will the affected agencies be willing to devote the time, money and effort necessary to develop and implement effective merit pay programs?" It won't be easy. But then, no one said merit pay would be easy, only better!

¹ Herbert H. Meyer, "The Pay for Performance Dilemma," Organizational Dynamics, Winter 1975, p. 39

² Ibid, p 41.

³ Edward E. Lawler III comments on Herbert H Meyer's, "The Pay for Performance Dilemma," see footnote 1. Comments appeared in Organizational Dynamics, Winter 1976, pp. 73-75

⁴ Edward E Lawler, "Performance Appraisal and Merit Pay," Civil Service Journal, Apr Jun 1979, pp 14-18.

⁵ C Richard Farmer, "Merit Pay Viable?" Personnel, Sept.-Oct 1978, pp 57-63.

722 754



Kenneth R. Libbev

Kenneth R Libbey is a management analyst at the Cincinnati regional office. A graduate of State University of New York at Binghamton, he received his Ph D in political science from Syracuse University. Mr Libbey formerly taught political science at the University of Cincinnati. His publications include articles on the French Communist Party, referendum politics in Switzerland, Henry Kissinger, J W. Fulbright, and the presidential campaign of George McGovern

Population Change and Public Policy

Congratulations to the Office of Management and Budget!

Thanks to them, the significance of population change has been highlighted in an important publication-The U.S. Budget for Fiscal Year 1980. As one who has argued that the changing structure of our population has important implications for public policy, I am encouraged to see it receiving attention at a high level. True, there is little fanfare: a 6-page discussion at the end of Part 3. True, the tone is tentative, even apologetic. But the ground is broken and the authors assure us that the "analysis will be continued and sharpened in future years.'

It is not that we have been totally unaware that population changes affect government policy and programs. The long range financing problems of the Social Security system have certainly received attention. Education administrators and policy makers have groped with the problems of first a growing and then a shrinking school population. But we seem less aware of the true dimensions of population change, and almost unattuned to the less obvious consequences of it.

By suggesting some of the less obvious ways in which the population changes caused by the baby boom are affecting our society (the authors call it a "demographic tidal wave"), this discussion does a genuine service. It touches briefly on such areas of public policy concern as education, the labor force, the armed forces, the crime rate, housing, savings and credit, retirement, and medical programs for the aged. It begins to evoke some of the fiscal implications of public policy.

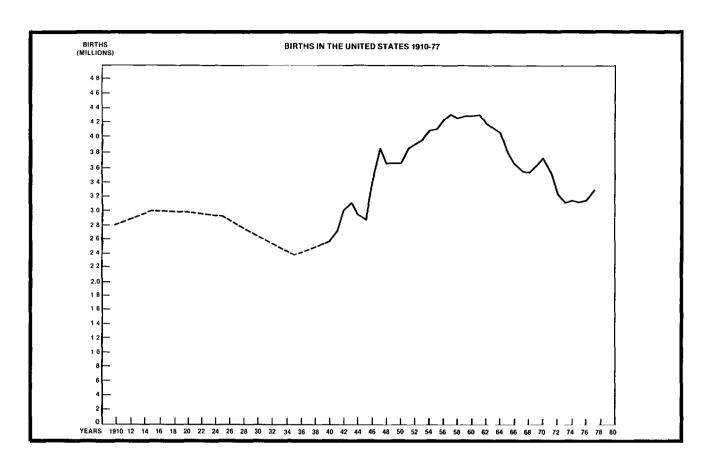
We can get an idea of the magnitude of change from Figure 1, which shows the number of births in the United States since 1910. Even more startling is the declining fertility rate of American women, which stands at scarcely half its 1957 level. As the authors point out, the fertility rate is now substantially below replacement level, and only the large number of women in prime

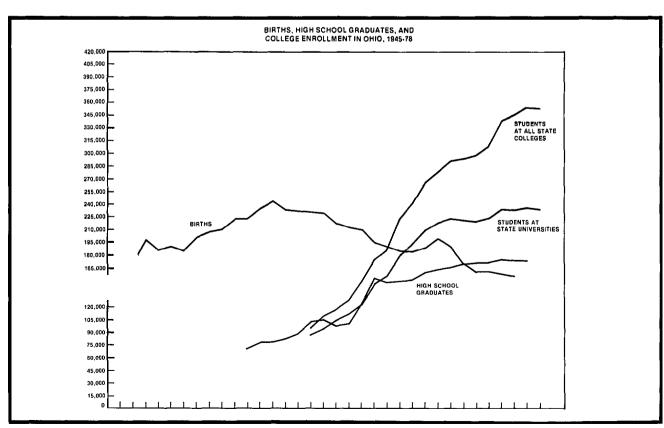
childbearing age is causing slight overall population growth.

In general, the analysis by OMB is a perceptive one, but there are some points at which I would take issue with them. For one, they leave the impression that many of the consequences of population change are still some time away. I think the need to adjust our thinking is much more immediate. In my opinion, we are already passing into an era of chronic labor shortage and the impact is being felt by companies trying to hire capable workers. A recession may temporarily relieve the pressure, but not for long. A seller's market for labor means higher inflation, a condition faced by many European countries throughout the 1960's. Regardless of the political implications, the country may have to accept annual inflation in the 10 percent range for a number of years.

OMB suggests that as children of the baby boom mature, productivity will increase because there will be more experienced workers in the economy. I find this a rather wishful prognosis. In a tight labor market, turnover becomes high and the strong bargaining position of workers creates downward pressures on productivity. Whatever gains in productivity we can expect in the 1980's will come from an accelerating pace of automation. We may find ourselves driven to the solution used by the Germans, Swiss, and Scandinavians: large scale importation of workers from less developed countries.

The effects of population change on public policy issues can be illustrated by looking at the growth and decline in higher education, Figure 2 displays births, high school graduates, and enrollment in State universities and colleges in Ohio. The first wave of the baby boom arrived on college campuses in the early 1960's, and set in motion extraordinary pressures for growth. In Ohio, capital appropriations for higher education in the 1960's were five times as high as in the 1950's. Operating appropria-





tions increased five-fold from 1961-1970. The State system was transformed into a series of comprehensive universities, branch campuses, and community and technical colleges, until every citizen in Ohio lived within commuting distance of a State campus.

Many educational institutions in the U.S. initiated graduate programs, constructed science facilities, expanded their faculties, and issued bonds to build dormitories. The extent of program proliferation is suggested in this remark by the President of Ohio State University in 1976, "This university has 125 instructional units, ranging from accounting to zoology. We offer 8,500 separate courses, 200 undergraduate fields of study, 85 programs leading to the doctoral degree, 112 programs leading to the masters degree."

Although State Governments were primarily responsible for supporting this growth, the Federal Government contributed to it through an assortment of programs such as construction and equipment grants and loans, graduate fellowships, research grants, and student assistance. But the momentum of cost escalation generated has been difficult to control as enrollment growth slowed in the 1970's. States are beginning to find that the expensive physical plant and heavily tenured faculties at State universities are a fiscal liability.

During the 1960's, the rapid growth of college enrollment occurred partly because the collegeage population was expanding and partly because the rate of high school graduation and college attendance grew steadily. The Federal Government encouraged advanced education in the postsputnik era, and public attitudes generally equated higher education with economic opportunity. As the decade closed, the Vietnam War and draft pushed high school graduation and college attendance rates to all time high levels.

Perhaps more fundamental was the way in which demographic forces influenced the decision to attend college. The rapid growth of the 18-21 year-old population group limited job opportunities for these young people and made college more attractive. Total employment increased by 20 percent during the decade, while the population group of 18 year olds grew by 45 percent.

This situation was reversed in the 1970's, and public attitudes toward higher education became more ambivalent. Only the recession year of 1975 produced an upturn in college participation rates by young people. Meantime, their participation in the labor force has been growing rapidly. In 1977 and 1978, the number of Americans aged 16-19 decreased slightly, yet the number holding jobs grew by 800,000, a gain of 11 percent. From 1970 through 1978, total employment has increased 23 percent while the number of 18 year-olds has increased only 12 percent. This age group is projected to decline by almost 19 percent in the 1980's, but it is likely that employment will continue to expand. In this situation of a falling pool of young people, one can expect that competition for them will be keen among various sectors of societycolleges, armed services, construction and service industries, etc. It would not be surprising if the college attendance rate continued to fall in the next decade.

The Federal Government spends large sums of money on student financial assistance and for research grants and contracts to colleges and universities. Numerous Federal agencies deal with universities or impact them in a regulatory role. During the coming years Congress can expect growing pressure to increase the amount and variety of its funding of higher education, as institutions face mounting costs and sluggish income. It is an open question whether policy will be developed with an appreciation of the demographic environment of higher education and the adjustments that must inevitably be made.

Conclusion

The implications of population change for a given area of public policy can be subject to differing interpretations. But the relevance of this factor can hardly be overlooked. As we in GAO undertake program evaluation, we cannot afford to ignore the "tidal wave" and its wake. We cannot be content with just examining how a program

dealt with yesterday's problems; we must be prepared to ask how it should respond to those of today and tomorrow. And if the agencies we review are ignoring the changing population in their planning, we should make it known to Congress.



Nancy E. Wroe

Ms. Wroe began her career with GAO in the Logistics and Communications Division in 1972 and in 1973 was reassigned to the newly-created Upward Mobility Office. After providing assistance and guidance to upward mobility applicants, participants, and division managers for more than 5 years, she was instrumental in the decentralization of responsibility for Upward Mobility Program administration within Personnel. Presently a personnel management specialist in the Competitive Selection Unit of Personnel, Ms. Wroe attends Prince George's Community College and is a member of the International Personnel Management Association.



Victor J. Christiansen

Mr. Christiansen joined GAO in June 1974 and is presently assigned to the Recruitment and Placement Branch of Personnel. He graduated from Lincoln University, Pa., in 1973 with a B.A. degree in business administration Currently, he is attending the University of Maryland and anticipates receiving his M B A. degree in December 1979. Mr. Christiansen is a member of the American Society for Public Administration.

Upward Mobility: Facts and Fallacies

Maxine is a model employee. Her initiative and work quality are exceptional, and she performs her assignments as a clerk-typist with utmost enthusiasm. She has a strong desire to be an auditor and involves herself in the audit staff's work to an extent not normally expected of someone in her position. As her supervisor, you would be reluctant to be without her valuable assistance; however, it is obvious to you that she has the potential to become an auditor. Unfortunately though, she doesn't have the education or experience needed to qualify for an entry-level auditor position.

Sharon is a GS-5 secretary and has been in her present position for 3 years. Before coming to GAO, she was a top-notch accounting clerk in private industry. She has nearly completed the requirements for a degree in business administration. Sharon really doesn't like being a secretary and says she took the job "because it was the only thing open, not by choice." Sharon admits to sometimes having a poor attitude which affects her work performance: she feels frustrated with work that doesn't allow her to use her experience and skills.

Helping underutilized or underdeveloped employees such as these is what the Upward Mobility Program is all about. Former President Nixon called attention to the motivations, expectations, and the careers of Federal workers in Executive Order 11478, when he instructed heads of departments and agencies to "utilize to the fullest extent the present skills of each employee, (and) provide the maximum feasible opportunity to employees to enhance their skills so that they may perform at their highest potential and advance in accordance with their abilities."

Behavioral science research over the last half century has consistently supported the thesis upon which the Executive order is based. The traditional hierarchy and control systems do not necessarily motivate each worker to operate at his or her full potential. Instead, factors such as status and importance of the job, level of responsibility, and opportunities for advancement are shown to be much more effective motivators of performance. Employees whose career horizons are limited by their own lack of education, training, and experience and by the employer's lack of concern for their full development and utilization are unlikely to find their present work assignments so responsible and rewarding that they are motivated to excel.

The goal of upward mobility programs is to develop methods by which lower level employees can move into higher level positions that can match their highest potential. Typically, this goal is accomplished by crossover, skills upgrade, or bridge programs.

The bridge program is well-suited to GAO and is the primary vehicle used to provide avenues of advancement for our lower level employees. The bridge position becomes an interim or preprofessional job which has a related two-grade interval job as the target position. Trainees enter the bridge position competitively and are reassigned to the target position without further competition upon successful completion of training in the bridge position.

Myths and Misconceptions

While most agencies, including GAO, now have successful upward mobility programs, misconceptions concerning the intent of upward mobility have surfaced and, unless, resolved, they may erode the future success of the programs.

Upward Mobility and EEO

One of the most common misconceptions is that our Upward Mobility Program is only for minorities. By regulation, upward mobility efforts focus on employees at lower levels, and many minorities and women, who are concentrated at the lower levels because of inade-

quate education and past discrimination, have derived substantial benefits from upward mobility programs. However, these programs are not solely a means of providing advancement opportunities for minorities and women. They derive their impetus from a more basic issue-human resource development. In this pursuit, our program attempts to provide career opportunities, without regard to race or sex, to all underutilized or underdeveloped lower level employees who demonstrate potential. Profiles of those participating in GAO's program reflect a balanced distribution of whites and minorities.

An extension of the view of upward mobility as a program only for minorities is the misdirected belief that minorities and women have little potential for performing professional work. Some minorities and women have been able to achieve professional status via the Upward Mobility Program, and statistics on program graduates show they have the ability to progress up career ladders in the organization.

However, both those individuals who have participated in the program and those who have not may be adversely affected by such negative attitudes. Beliefs that advancing minorities and women to responsible positions lowers standards or undermines the quality of work being done exist either consciously or unconsciously in some organizations. Such beliefs are usually not expressed in words but instead surface in the way in which work is assigned, in overemphasis on academic credentials, in reluctance to use experience-based measures, and in other actions that hinder the progression of program applicants, participants, and graduates. The effects are counterproductive to the intentions of Executive Order 11478 to enable employees to "perform at their highest potential and advance in accordance with their abilities."

Nothing Is for Free

Another fiction sometimes perpetuated is that the Upward Mobility Program is a "giveaway" program which provides too much and expects too little. A frequent complaint of supervisors as well as coworkers of program participants is,

"I put in long hours of study and worked a part-time job to get through college. I really had to struggle to become a professional. Why shouldn't these people have to struggle too?"

In fact, the Upward Mobility Program does not eliminate the "struggle" for those selected. Changing careers is strenuous in itself, and a great deal of personal adjustment and hard work is necessary to make the transition successfully. Much personal effort must be exerted to modify behavior and thought processes, to adjust from feeling competent in the position to knowing little or nothing about how to perform a new assignment, and to assimilate the new career into one's own life. In some cases, family situations further complicate participants' progress in the program.

Sometimes, program participants experience difficulty in adjusting to their new roles in the professional environment. This may be caused by participants' problems in changing established behavior. Participants need to change the way they approach assignments and the way they relate to other members of the staff. Sometimes adjustment problems are further complicated by supervisors who have preconceived notions about support employees ("once a secretary, always a secretary"). It takes considerable effort for participants to sell their merits to this kind of manager. Views such as this can even result in additional obstacles created by misassignment of duties.

On occasion, program participants are authorized limited time off at full pay (release time) to attend college courses; however, this is not always an advantage. Release time may inhibit the participant's ability to benefit fully from on-the-job training and to demonstrate job performance at a level sufficient to warrant continuation in the program and advancement to higher grade levels. Also, amounts of release time which may be authorized do not always fully cover time spent in class. Going to school at night instead does little to alleviate the pressures experienced by the participant in contending with priorities of on-the-job training, college, and home situations. All of this can add up to a remarkable feat for even the sharpest

program participant.

The Role of Education in UMP

By far the most prevalent misconception about upward mobility involves the issue of college education. Many GAO professionals believe that a degree is necessary to qualify for the professional positions that exist in GAO. This, in turn, leads to beliefs that (1) upward mobility participants must get a degree to "cross-over" to the professional staff or (2) program graduates who don't have degrees must pursue them.

In some occupations, it can be clearly shown that special credentials (medical degree, teaching license, engineering degree, etc.) are necessary to perform the work and to protect society. Positions in these occupations cannot be obtained without the appropriate credentials. With few exceptions, professional occupations in GAO do not fall into this category, and, while education may be a good way to gain the necessary knowledges and skills, it is not necessarily the only way. In fact, most Federal qualification standards first state qualification requirements for occupations in terms of experience and then provide alternative means of qualifying through the substitution of education for amounts of experience.

Historically, GAO has staffed the vast majority of its professional positions through recruitment at college campuses. Therefore, it isn't surprising that GAO professionals, who themselves were hired in this way, would view education as the only means of qualifying for professional positions. This misconception results in resistance to upward mobility "bridge" positions as a means of providing the kind of learning situations that will aid employees in qualifying for entry to the occupation. Unfortunately, it also results in a stigma being placed on program participants and graduates which can adversely affect their subsequent career mobility in GAO.

Additional problems occur when participants or their supervisors overemphasize college education in relation to on-the-job training in the overall development plan. Partici-

pants may attend college courses to obtain remedial training or to supplement on-the-job training. However, attendance is not to be approved solely because the courses are part of an individual's degree program. Despite stated policy to this effect, many participants receive approval to use release time to attend college. This reduces the amount of time spent on the job learning new skills needed for success in the target job as well as time required for supervisory assessment of job performance and training needs. In addition, training funds expended in this manner represent a substantial cost to GAO, not only monetarily, but also because other employees are deprived of an opportunity to receive training that could legitimately enhance their ability to perform.

Continuing problems also arise with scheduling work tasks for participants who are frequently not at work due to extensive use of release time. In particular, program participants in regional offices may not be obtaining the quality of experience available to others because of limitations on travel made necessary by the perceived requirement to attend college. Obviously, overemphasis of college education must be avoided.

Another result of misconceptions concerning education is the improper consideration it is sometimes given in managerial decisions to recommend reassignments to target positions, promotions within the program, and career ladder promotions for program graduates. When evaluations reflect job performance at sufficient levels to warrant these actions, lack of enrollment in college courses is not a legitimate reason to deny or delay the actions when the individual meets experience and time-in-grade requirements.

Misconceptions about the educational aspect also exist within the applicant population. Judging from routine inquiries about the program, many employees interested in applying for the program believe that taking college courses is what the program is all about. Even though program selectees are informed of the details of the program before entry, dissatisfaction is often felt by those who realize too

late that the training emphasis is not actually placed on education.

Promotions: Promising Opportunity, But No Promise

Finally, misconceptions concerning promotions for program particlpants present problems. Many professional and support employees mistakenly believe that automatic promotions to the target level become available to those selected for the Upward Mobility Program. This is a common misconception even in other occupations that afford noncompetitive promotion potential.

Sometimes, participants believe that this means guaranteed promotion when they meet time-in-grade requirements. They do not fully realize that it is also necessary that supervisors recommend the promotions on the basis of positive determinations of each employee's abilities to perform at higher levels.

Some supervisors and sponsors believe they must promote participants who become eligible and are reluctant to delay participant promotions, even in cases where job performance problems exist. Most often this occurs when supervisors fear formal complaints, are unwilling to "deprive" participants of promotions at lower grade levels, or are unable or unwilling to make statements about performance deficiencies in one-on-one counseling to counsel on what to improve and how or to put time and effort into remedial training.

This perpetuates the misconceptions of applicants and participants that promotions are guaranteed and, more importantly, it results in failure to correct performance deficiencies. This not only has a negative influence on the credibility of the Upward Mobility Program but also results in employee morale problems, unpleasant confrontations over the denial of career ladder promotions, and dissatisfied supervisors whose normal expectations can't be met by these graduates. Failure to address performance problems of program participants, and regular employees for that matter, merely postpones and sometimes intensifies difficult situations.

The Future of Upward Mobility in GAO

GAO has an obligation to provide maximum opportunities for employees to reach their highest potential. Meeting this obligation does not hinder, but actually enhances our ability to accomplish our stated mission. In carrying out our established goals and purposes, we can assist our employees who also have goals and aspirations. When these two sets of goals mesh and complement each other, mutual satisfaction results.

The development of human resources through upward mobility not only benefits employees, but also provides substantial benefits to GAO as a whole. Individuals participating in the program are more satisfied with their positions and consequently employee morale, overall job performance, and productivity all increase.

The Upward Mobility Program, although available to all employees on a nondiscriminatory basis, has proven to be an effective affirmative action tool. By assisting employees in lower graded positions to gain skills and advance within the system, our Upward Mobility Program has had a positive impact on our overall EEO posture.

Success in Operation

GAO's Upward Mobility Program has been very successful since it was initiated nearly 6 years ago. There are now 26 employees receiving both on-the-job and classroom training designed to facilitate their progression to the professional ranks. Sixty-six participants have graduated from the program and are now management analysts, budget analysts, editors, computer technicians or programmers, or personnel specialists.

One of the first employees who entered the program provides a good example of the program's success. To enter the program, the employee took a reduction in grade in April 1974 from a freight rate position in the former Transportation and Claims Division. While in the program, he received on-the-job training and attended college courses at night. His goal was to obtain a position as a management

analyst. His performance in the program was highly satisfactory, and he graduated from the program during the following year. He decided to continue his education after leaving the program and has since received both a bachelor's degree and a master's degree.

His contributions on the job have not gone unnoticed. He has received consistently high appraisals and has progressed rapidly up the career ladder to the GS-12 level. He has also received two agency awards indicating that he is held in high esteem and has made substantial contributions in GAO.

This employee, being highly motivated, may have eventually been able to achieve his goal without participating in the Upward Mobility Program. However, he realized that the program provided an opportun-

ity that might not have been otherwise available. He expressed this opinion when he recently stated that "the Upward Mobility was instrumental in my professional development. I always intended to move into an auditing position; however, this goal may have been unobtainable without the assistance provided by the program."

This is just one of many upward mobility success stories. Other program participants have had similar experiences and have taken full advantage of the opportunity presented by the Upward Mobility Program. One such graduate recently stated, "I think the Upward Mobility Program is a great opportunity... It is a chance to pull oneself up by the bootstrap, so to speak. I am certainly grateful for the benefits I have derived as a result."

Another graduate stated, "I was underutilized in my old job. I was bored and not very productive. Fortunately, the Upward Mobility Program was available to me. It wasn't easy, changing jobs and attending school at night, but as I look back, it was a very wise career decision."

Each program graduate can be justifiably proud of his or her significant achievement and is proof that the program is successful and has fulfilled its objective.

A Firm Commitment and Unyielding Support

The Comptroller General has reaffirmed his support for the Upward Mobility Program in a recent memorandum dated January 26, 1979, to all employees. He also praised GAO employees who have supported the program. In a recent letter to the House Appropriations Committee Mr. Staats said,

Although the program has my firm commitment and unyielding support, its success is due. for the most part, to the continued commitment and support of my top managers and supervisors who recognized the value of the program, and are committed to the principles and concepts of equal employment opportunity and human resource development. The program will continue to receive vigorous management support this year and in future years. Consequently, we expect to maintain a dynamic and highly successful program, and believe it will be even more successful in FY 1979 than it has been in previous years.

The future success of the program depends upon the willingness of both management and program participants to fulfill their responsibilities. Management must continue to provide: (1) effective onthe-job training, (2) individual counseling, and (3) financial support for approved training. Most importantly, however, divisions and offices must continue to identify and designate positions to be filled through upward mobility.

Program participants must be willing to show initiative, motivation, perseverance, and the ability

	UMP GRADUATES Previous Position and Grade							
POSITION	GS-4	GS-5	GS-6	GS-7	GS-9	Total		
Clerical and Administrative	2	5	1	-	-	8		
Secretarial— Typing/Steno	1	13	17	6	-	37		
Claims and Adjudication	1	3	6	1	1	12		
Editor	-	-	•	1	-	1		
Transportation— Clerical and Administrative	1	5	1	-	1	8		
	5	26	25	8	2	66		

	UN	MP GRA	ADUAT	ES		
Curr	ent Po	sition,	Series	, and Gra	ade	
POSITION, SERIES	GS-5	GS-7	GS-9	GS-11	GS-12	Total
Staffing Specialist, 212	1	٠	-	-	-	1
Computer Pro- gramer, 334	1	-	•	-	-	1
Computer Tech- nician, 335	1		-			1
Management Analyst, 343		18	16	9	2	45
Budget Analyst, 560	1		-	-	-	1
Adjudicator, 950	-	5	3	5	-	13
Editor, 1082	3	1	-	•	-	4
	7	24	19	14	2	66

LIMB OD A DUATEO

to perform at the target level. Participants must also be willing to accept responsibilities and continuously strive to identify areas needing improvement.

The continued success of upward mobility in GAO also depends, in part, on our ability to identify and create new avenues for upward mobility. Paraprofessional positions, such as those successfully introduced in other Government agencies, in the medical and legal fields, and in the "Big 8" accounting firms, can provide upward mobility in GAO if given the necessary support by management. The Comptroller General favors the establishment of paraprofessional positions and the Position Classification and Personnel Management Evaluation staff of Personnel has recently identified a substantial number of duties being performed by auditors that can be accomplished by paraprofessionals. Position descriptions for paraprofessional positions are now being developed and will be available for use in GAO by June 1, 1979. Lowergraded administrative support employees selected for these positions will be auditor assistants (GS-344) with advancement opportunities to the GS-8 level.

Upward mobility has contributed significantly to the accomplishment of GAO's mission by supplying alternative means for staffing professional positions with capable and highly motivated employees. Upward mobility is not a welfare program sponsored by GAO, but a mutually beneficial undertaking that provides employees an opportunity to perform at their highest potential. Without the Upward Mobility Program these employees may never have been given the chance to advance.



Frederick Gallegos

Mr Gallegos, a management analyst of the management science group in the Los Angeles regional office, has a M.B.A. from California State Polytechnic University at Pomona. He provides computer-related assistance to the LARO audit staff, has taught COBOL programing and systems analysis at his alma mater, and has published other articles and texts on data processing. He received the GAO Meritorious Service Award in 1978 and has been named to Who's Who in Finance and Industry (1979-80) Also, he is a certified data processing auditor and has been with GAO since 1972.

A Methodology for Reviewing Computer Software

In the recently issued Additional GAO Audit Standards for Auditing Computer-Based Systems, Mr. Staats states that our Office has been concerned for some time that the audit coverage accorded computer-based systems does not measure up to the quality needed to assure that proper results are attained. Further, the first supplemental standard for computerrelated auditing states, "the auditor shall actively participate in reviewing the design and development of new data processing systems or applications, and the significant modifications, as a normal part of the audit function." One of the objectives supporting this supplemental standard is that the auditor will provide assurance that the systems/applications (computer software) be efficient and economical in operation. But how does the auditor recognize whether inefficient, ineffective, and uneconomical practices exist? And, how can this be quantified into meaningful findings? One answer is in applying an appropriate methodology to make this assessment and meet this objective.

The Concept

For someone who does not have the technical knowledge required to review the computer software (actual program instructions), this task can be a monumental and a frustrating one. In evaluating the efficiency and effectiveness of software, you must understand how such measures can be made and what kind of quantitative value can be placed on them. To help the auditor perform this task, experts are available at GAO headquarters, in regional office groups such as FGMSD's Computer Performance Evaluation Group, other divisions' ADP groups, and regional management science and ADP groups. More importantly, a knowledgeable staff that can help you conduct this type of review can exist at the agency installation under review. Several agencies have such groups that are responsible for monitoring the efficiency and effectiveness of the computer usage and operations. If the agency does have a computer performance evaluation group or a quality assurance group they can provide the necessary information which can be validated by one of GAO's ADP audit groups.

With the proper assistance, a methodology can be applied to allow an auditor to make such an evaluation. In addition, the assessment can be made through the aid of computer software tools¹ and techniques.²

A number of packaged software and programmer productivity aids have been developed which can allow an auditor to use software to audit software. Also, a number of procedures and methods can be applied using software tools to help the auditor make an assessment of the software's efficiency and effectiveness.

Selecting the Software to Review

The starting point in the process is reviewing reports which are generated and used within the information processing facility. A well-run information processing facility will have reports which would indicate, by job or computer application, the amount of computer resources used and the time of its occurrence. These reports are usually generated from the computer's internal accounting data. If these reports do not exist or a formal performance evaluation group is not present to help you locate this data, the auditor will probably have to develop this information by using an audit retrieval package such as DYL-260, CARS III, or a software package which analyzes computer accounting data such as SARA or LOOK, or by developing the software using a higher level program language such as COBOL or

GAO Review/Summer 1979

Fortran. Again, before this takes place the auditor should consult with the agency's computer performance evaluation group (if one exists) or a knowledgeable facilities systems programmer and more experienced GAO ADP personnel (this is mandatory).

selected for a detailed review, the auditor should record the historical run statistics of the selected program on a review worksheet (Figure II) that can be used to make before and after comparisons. This information can give an auditor some preliminary idea of the average cost

designed to bring the selected program under the auditor's control. A meeting with those responsible for the application software (the programmer analysts and programmers) should be arranged to notify them of the review and to ask them not to make any further program

								OST	ATED C	Y SELEC Y ESTIM 1977 TO I	STING B	JOB LI					
3, 1977 PAGE	NOV 28	DATE	RUI												01027R01	5230/0	SYM/NO.0
RS #AC	RUN-H	/0-%	SEC-	CET	RE-U	R-CC	TP	DSK	HASP	TAPE	DISK	CPU	STEPS	JOBS	EST-COST	APP	JOB NAME
		.76	4218	5.56	392	400	1	35	4295	50421	393955	1271	1	1	1539.56	D77	D77HHJX1
1	3.80	•••											_				
1	3.80 14.27	.39	1403	3.41	530	530	5	87	18278		134404	2169	6	1	1480.24	D78	D7500J01
1				• • • •	530 530	530 530	_	87 87	18278 35771		134404 132047	2169 2156	6 6	1 1	1480.24 1468.13	D78 D78	D7500J01 D7500J01
	14.27	.39	1403	3.40			5						-	1 1 1			

An example of a report which can provide an auditor detailed statistics on the characteristics of a computer program is presented here. The report represents an analysis of the top 50 computer programs that were run on the agency's computer during the period October 26, 1977, to November 25, 1977, by the estimated cost field. Also identified are the job name, the program name, the department/section responsible for the computer software, and the estimated cost of that run.

There are several other columns in this report which identify the computer software's use of computer resources such as computer memory (used in seconds), disk accesses, tape accesses, and other factors. The auditor will note that the report shows the estimated cost of the run. This cost identifies a quantifiable measurement the auditor can use to make an assessment. Perhaps more importantly, it points out that the information processing facility has made some quantifiable assessment of the value of using the computer's available resources (such as memory, disk, tape, etc.) The report cited in Figure 1 can be programs which are the highest users of available resources, and thus would be candidates for efficiency and effectiveness review.

Applying a Method To Review an Application Program

After the computer program is GAO Review/Summer 1979

to run this program for a year or identify cost trends associated with periodic runs. For example, the application selected may be run on a bi-weekly, monthly, quarterly, or annual basis or its high processing costs may occur at those times even though the computer application program is processed more frequently.

The next series of steps is

changes or modifications to the software during the review. Also, any program documentation they may have on the application program should be obtained by the audit staff. Audits of computer software are technically different but not conceptually different from management compliance audits. In most instances in which GAO auditors have applied this concept,

OGRAM NAME Hospital	CONTROL NO				
☐ Before Review	☐ After Rev	lew			
ORE REQUIREMENTS (DECIMAL) V 400K	WITHOUT BUFFERS	WITH DOUBLE BUFFERS			
	PRODUCT	ION CYCLE			
ELEMENT	157	2ND	3RD		
EST COST	1539,56	1539,56 636.66			
CPU SEC	1271	609	1309		
ELAPSED TIME	3 8 hrs.	2 3 hrs.	5.1 hrs.		
I/O SECONDS	4218	2400	5245		
MEMORY USED	392K	370K	395K		
MEMORY REQUESTED	400K	400K	400K		
	INPUT A	ECORDS			
FILE I Disk	1,400,000	556,876	1,978,007		
FILE 2 Tape	104,404	50,668	122,245		
FILE 3					
FILE 4					
DATE	11/6/77	10/22/77	10/15/77		
PREPARED BY					
VIEWED BY	1 O. A	START DATE	FINISH DATE		
F. Gallegos G	AO AUGITOF	12/1/77	12/15/77		

the programming supervisor responsible for the application program said that the program was already operating as efficiently and effectively as possible and that no improvement could be made. An auditor tests manual systems by verifying its input, processing, and outputs. Computer software can be evaluated in the same way. The auditor will need to hold the input files to the application program to evaluate the efficiency and effectiveness of the processing steps and the outputs created by it.

In the next phase of the evaulation, two copies of the initial source program are made to allow the auditor to make program improvements to one of the copies and compare this to the original version of the application. Again, note that copies of the original program are made for evaluation purposes. The auditors who work with the actual application program rather than a copy take great risks in interrupting agency operations as well as violate controls regarding application software. Further, an error to an agency's application software (in payroll, inventory control, fund accounting) can cause serious problems.

After the copies of the source program have been made, the auditor should review the facility user's guide on efficient programming techniques and methods. If a user's guide is not available, then the auditor would consult GAO auditors experienced in these areas. With the existing program documentation, a review of the program code can be undertaken by the auditor, with the aid of sources mentioned earlier. In this process (code review), the auditor should look for inefficient or ineffective programming practices. These could include:

- Inefficient use of table searching techniques such as iterative subscript, serial, binary, and partition scan.
- Ineffective and inefficient use of vendor-unique extensions which do not comply with agency programming standards and can cause problems in future conversions.
- Use of ineffective and ineffi-

- cient programming logic such as that used in complicated and cumbersome branching instructions.
- Inefficient access of automated logical or physical records.

In processing claims in manual systems, if proper techniques and methods are not applied, the result may be an overpayment or incorrect posting to the record. So it is with computer programming techniques and practices, and, as a result, they have become more refined and structured.

Today there are a number of software tools and techniques that can assist the auditor in code review. For example, a software optimization tool can be used to assist auditors in scanning COBOL program code and indicate where coding inefficiencies can be improved. Such packages are also available for Fortran code and other languages.

Other software tools are available which can be used to analyze the existing application programs. For example, during a recent review, GAO auditors used such tools to monitor and instrument the performance of the computer program. The tool identified areas within the program code where most of the program's processing time was spent. At one particular facility, such a tool was used by auditors to analyze the logic of a COBOL computer program. The application program processed an input file of 27.000 records and created the required output records. The analyzer's output results point to one area of programming code that was executed 1.3 million times. Further, the auditors' examination identified poor programming logic and inefficient table searching techniques as the primary causes for the problems. In other cases, a program analyzer was used by auditors to ensure all logic paths within the program were executed by the test data. For example, only 30 percent of the programming code was executed by the test data; this indicated a weakness in the software testing procedures of the agency. Such statistics can identify areas of the application program logic which can be improved to process the data more efficiently and effectively.

After analyzing the results from these review tools and coding review, a list of suggested improvements is made. After discussing this list with experienced agency programming personnel and GAO ADP audit personnel, the accepted changes are incorporated into a copy of the actual source program. The improved program is then run against the same input as the original version of the program. The outputs of both runs are compared to ensure that the results are identical and that all logic paths are tested within the program. If not identical, the necessary corrections are made and retested. Again, this validation and verification step should be assisted and confirmed by experienced GAO ADP personnel. In the audit discussed earlier, the difference in the performance statistics of the actual versus the improved application program was 88 percent.

Finally, once the parallel run has been completed and the process verified, the auditor must interpret the improvement into quantitative terms that will be meaningful to the agency's management. In the previous example, GAO auditors improved the performance of the computer software by 88 percent. this means that the program, which is run on a bimonthly basis, will require 88 percent less computer resources each time it is run. Based on the cost accounting data the auditors had available, they were able to estimate an anticipated saving of close to \$5,000 in freed computer resources and reduced production run costs. (This was not bad for 4 staff days of effort.) After a recent discussion with agency personnel, a year after the work described above was accomplished, the actual savings were estimated to be close to \$10,000.

Applying the methodology requires the cooperation of agency personnel, both ADP and non-ADP. Through a respect for professionalism, the ADP personnel in agencies which have undergone GAO reviews have become believers in efficiency and effectiveness reviews by auditors and/or computer performance evaluation staff members.

Ramifications and Government-wide Impact

The concept that auditors equipped with software tools and techniques can audit computer software is not new. However, the concept that auditors using software tools written in higher level languages such as COBOL or Fortran that can be transported to other installations and used by the auditor to review software is relatively unused. At another Federal installation, the audit staff used the software tools and techniques (which they gained experience in using at a prior audit site) to review computer software. At the installation, through the same process, one production application program was improved 71 percent. The estimated yearly savings attributed to the auditor's effort is estimated at about \$25,000 in freed computer resources and reduced production run costs. In addition, GAO auditors taught the agency's personnel how to use the performance evaluation tools and techniques to improve their ADP operations.

Recent GAO reports and several federally supported studies have stated that the Federal Government spends in excess of \$6 billion a year on software for all types of automated data processing. The cost of software-that is, the cost of designing, operating, and maintaining the programs that direct the computer to do its various logical steps-has become the predominant cost of ADP systems. If external and internal auditors can use such software tools and techniques to review and inspect the agency's practices in their creation and use of software, an enormous Government-wide savings can be achieved for a minimum investment. During a recent Government-wide review, we found only a few auditors using such methods. However, the savings of these auditors or internal review groups who used such software tools and techniques totaled in excess of \$10 million dollars.

Conclusion

The concept and experiences GAO Review/Summer 1979

gained in applying this methodology are currently being explored and applied in two ongoing FGMSD reviews. The auditor, using software tools and techniques, together with agency personnel, can work toward a common goal: a more effective, efficient, and economic ADP operation. Also, the method can give the auditor a means of providing assurance that the the systems/applications (computer software) are efficient and economical in operation and in line with the booklet, Additional GAO Audit Standards for Auditing Computer-Based Systems.

¹ A computer program that helps to automate the management, design, coding, testing, inspection, or maintenance of software

² Methods or procedures for developing, documenting and evaluating computer programs

Legislative Developments

Judith Hatter

Employment and Compensation of General Accounting Office Employees

An important GAO legislative proposal was introduced on March 29 by Congressman James M. Hanley of New York. The measure, H.R. 3339, would provide for the employment and compensation of employees of the General Accounting Office.

The broad objective of the proposed legislation is to improve the efficiency and effectiveness of GAO and to reinforce the credibility of its work. By the terms of the bill, GAO would be more independent of the executive branch in order to reduce to a minimum conflicts of interest arising from its dual role as an executive agency subject to executive branch controls and as a legislative branch agency responsible to the Congress for evaluating programs administered by the executive branch. The effect is to remove GAO from jurisdiction of the Office of Personnel Management.

H.R. 3339 is similar to bills introduced in the 95th Congress, H.R. 12845 and S. 3411, which received no action. The new bill has been referred to the Subcommittee on Civil Service of the House Post Office and Civil Service Committee chaired by Patricia Schroeder of Colorado.

Disclosure of Lobbying Activities

On March 7 Robert F. Keller, Deputy Comptroller General, presented the views of GAO on H.R. 81 and related bills pertaining to disclosure of lobbying activities.

Mr. Keller's testimony focused on three areas: the general opinion for the need for lobbying disclosure legislation; refinements to bills to minimize recordkeeping burdens and promote reporting of meaningful information; and GAO views on administering and enforcing the proposed law.

Among other things, concern was expressed over transfer of clerical duties to the Comptroller General without any compliance tools. GAO would be placed in a position of appearing responsible for administration and providing complete lobbying information, when, in fact, the Comptroller General would lack tools to administer the law effectively.

Service Life Extension Program for the "Saratoga"

On May 2 the Senate began considering S. 429, which would authorize additional appropriations to the Department of Defense for fiscal year 1979.

The measure contains a provision prohibiting expenditure of funds to carry out the Service Life Extension Program (SLEP) for the aircraft carrier Saratoga unless such program is conducted on the basis of least cost as confirmed by the Comptroller General of the United States in his report to the Congress on September 22, 1978.

At an earlier time, Senator Bill Bradley of New Jersey made the following comment concerning this provision:

It requires that the Secretary of the Navy award the SLEP contract for the Saratoga solely on the basis of cost as determined by a single study, a study prepared by the General Accounting Office. In questioning the wisdom of resting a military decision on a GAO study, I mean no slur on the value or significance of the work of the GAO to Congress. Each of us has found its studies extremely helpful in pointing to administrative waste and inefficiency. But that is not to say that either the Congress, or the President, or the Department secretaries, should defer their judgment to that of the Comptroller General. On policy questions, the GAO opinions must defer to the judgments of Con-

GAO Review/Summer 1979

gress and the Executive officials who have the major responsibility for those policies. 1

Davis-Bacon Act

Congressman Tom Hagedorn of Minnesota referred to a report by the General Accounting Office when recommending that the Davis-Bacon Act be repealed.

Mr. Hagedorn indicated that 73 cosponsors now supported his bill, H.R. 1900, for the repeal of the Act.²

On May 2, the Comptroller General appeared before the Subcommitte on Housing and Urban Affairs of the Senate Committee on Banking, Housing, and Urban Affairs, to discuss the report entitled, "The Davis-Bacon Act Should Be Repealed" (HRD 79-18, Apr. 27, 1979) and to support and recommend enactment of S. 301 to amend laws relating to housing and community development with respect to labor standards.

Appearances Before Congressional Committees

GAO officials made 72 appearances before committees and subcommittees of Congress from January through April 30, 1979, to offer testimony on a variety of subjects.

¹ Congressional Record, Vol. 125 (Apr. 23, 1979), p. S4497

² Congressional Record, Vol. 125 (Apr. 25, 1979), p. E1787

Reflections

Jo Clark

Twenty years ago in the STAFF BULLETIN (predecessor of THE GAO REVIEW), it was reported that:

- Robert F. Keller, Deputy Comptroller General (then General Counsel) testified before the Subcommittee for Special Investigations of the House Committee on Armed Services on 14 GAO audit reports issued during the past year on negotiated costreimbursement contracts awarded to the Air Force.
- The late E.H. Morse, Jr., then Director of the Accounting and Auditing Policy Staff and Editor of THE GAO RE-VIEW (later Assistant Comptroller General), accompanied by E.J. Mahoney, testified before the House Committee on Post Office and Civil Service, Subcommittee on Census and Government Statistics, on the trend of development and use of electronic or automatic data processing systems in the Federal Government, with special reference to the impact of such systems on employee job security and manpower utilization. Their condensed statement was published in the July 1959 issue of the STAFF BULLETIN.
- Paul Lynch, then with the Defense Accounting and Auditing Division—now with the Financial and General Management Studies Division—was appointed as Chairman of the Committee for Governmental Accounting, D.C. Institute of Certified Public Accountants.
- Robert Drakert, then manager of our New York regional office—now deputy associate director in the International Division, was designated assistant director of our European Branch.
- H.L. Krieger, then manager of the Chicago regional office, now director of Federal Personnel and Compensation Division succeeded Robert Drakert as manager

- of the New York regional office.
- Gene Birkle, deputy director of the Community and Economic Development Division (then with Civil Accounting and Auditing Division) had his picture in the May 1969 issue of FORTUNE magazine. The magazine referred to him as one of 16,000 accountants in the Federal Government. It is interesting to contrast that to the number of accountants in today's Federal Government-approximately 125,000-almost eight times the number 10 years ago.
- The following officials, headquartered in Washington, joined GAO during the summer of 1959:
 - John D. Heller, Assistant to the Comptroller General and Editor of THE GAO REVIEW
 - Daniel P. Leary, director, Claims Division
 - Daniel F. Stanton, deputy director, General Government Division
 - Wilbur D. Campbell, associate director, Community and Econimic Development Division
 - Werner Grosshans, associate director, Logistics and Communications Division Hugh J. Wessinger, associate director, Community and Economic Development Division
 - George L. DeMarco, assistant director, International Division
 - Clarence M. Ellington, Jr., assistant director, Logistics and Communications Division
 - John F. Simonette, assistant director, Financial and General Management Studies Division
- During the same summer, the following officials in our regional offices joined GAO: Walter D. Herrmann, Jr., regional manager, Detroit William D. Martin, Jr., regional manager, Denver George L. Anthony, assistant regional manager, New York

- Val J. Bieleki, assistant regional manager, Washington
- Howard R. Cohen, assistant regional manager, Washington
- Solon P. Darnell, assistant regional manager, Atlanta James E. Mansheim, assistant regional manager, San Francisco
- John E. Murphy, assistant regional manager, Denver
- The following officials, then with the former Civil Accounting and Auditing Division, testified before the House Committee on Agriculture on the Agricultural Trade Development and Assistance Act of 1954:
 - Otis D. McDowell, assistant director, General Government Division
 - Frederick K. Rabel, assistant director, Community and Economic Development Division
 - Henry Eschwege, director, Community and Economic Development Division
- The Rome and Madrid field offices of the European Branch were closed and the staff transferred to the Paris office. Arrangements were also being made for closing the London office. Reason: Concentration of staff to provide a more flexible basis for maximum use of staff to place increased emphasis on the functional and program review rather than the installation examination.
- A brief history of our Far East Branch, which was established in Tokyo in 1956, was summarized in the August 1959 STAFF BULLETIN.
 It is interesting to note that at the end of their first fiscal year—1957—the Branch had 13 employees. Today the Far East Branch has 44 employees—33 in Honolulu and 11 in Bangkok.
- A complimentary article about our office in the Dallas Morning News, August 9, 1959, entitled "Found, A Federal Agency Whose Obsession Is Thrift," was reprinted in the Congressional

- Record, August 1959, with comments by Congressman Olin E. Teague of Texas. (See September 1959 STAFF BULLETIN.)
- · A booklet entitled "Compilation of Statutory Restrictions on GAO Audit Authority and Responsibility" was assembled and distributed to the divisions and offices for general reference purposes by the Accounting and Auditing Policy Staff. booklet set forth the principal restrictions contained in law on the authority and responsibility of the Comptroller General to make audits of the activities and financial transactions of Federal Government activities. The restrictions, along with other laws, are now contained in a loose-leaf binder entitled "Legislation Relating to the General Accounting Office, prepared by the Office of General Counsel.

Ten years ago, in the Summer 1969 issue of *THE GAO REVIEW*, you'll find that:

- Comptroller General Staats addressed a number of organizations on a wide variety of subjects during this period. Excerpts of some of his speeches were printed in this issue covering such topics as social responsibility and the public service, the growing importance of management auditors in government, the role of women as professional accountants at GAO, etc.
- Mr. Maxwell Henderson, then Auditor General of Canada, was awarded a plaque by Comptroller General Staats in appreciation for his participation as guest speaker at the Third Annual Honor Awards Ceremony of the GAO on June 17, 1969. Mr. Henderson's address as well as names and pictures of recipients of awards and related citations were included in the REVIEW.
- Comptroller General Staats testified before the Subcommittee on Government Activities of the House Commit-

- tee on Government Operations in favor of the establishment of an automatic data processing system to support the Congress.
- Mr. Staats and other officials testified, before both Senate and House Committees having legislative overview of the administration of the poverty programs, on the results of GAO's review of the economic opportunity programs undertaken pursuant to Title II of the Economic Opportunity Amendments of 1967. The Comptroller General's summary report on this examination was submitted to the Congress on March 18, 1969. This report, followed by 55 reports shortly thereafter pertaining to this review, examined the important national program known as the "war on poverty." Due to the enormity as well as the controversial nature of the examination that GAO made, the reports received widespread attention. A short article about the review by Gregory Ahart, then Deputy director, Civil Division, was published in this issue of the REVIEW.
- The following staff members were designated assistant regional managers:
 Thomas A. McQuillan, New
 - York
 John E. Murphy, Denver
 Elmer Taylor, Jr., Cincinnati
- During this same period Roberson E. Sullins was designated assistant director in the International Division.

GAO Staff Changes



Stewart D. McElyea

Stewart D. McElyea was designated Assistant Comptroller General on June 11, 1979. He will handle a number of special studies for the Comptroller General and Deputy Comptroller General.

Mr. McElyea graduated from the University of Florida with a B.S. degree in business administration and completed the Advanced Management Program of the Graduate School of Business Administration, Harvard University. He served in the Army Air Force during World War II.

He joined the General Accounting Office in 1953, and he was appointed manager of the former Dayton, Ohio, regional office in 1956. In 1957 he was designated assistant director in the Defense Accounting and Auditing Division in Dayton, Ohio. There, he directed the activities of the General Accounting Office at the Air Force Logistics Command, In January 1963, he was appointed manager of the Denver regional office, and, in September 1971, he became the deputy director of the Field Operations Division. He was named director of that division in early 1976.

Mr. McElyea is a CPA (Florida). He received the Comptroller General's Award for his work on the Task Force on Improving GAO Effective-



Ronald Berger

Ronald Berger was designated assistant general counsel, procurement law, of the Office of the General Counsel, effective March 1979.

Mr. Berger attended Alfred University and received his LL.B. in 1966 from Yale Law School. He is a member of the Bar of the States of Connecticut and Maryland, the Bar of the District of Columbia, and the Federal Bar Association. Prior to joining GAO, he was engaged in private law practice in Connecticut.

Mr. Berger joined the General Accounting Office in 1971 and was assigned to procurement law work in the Office of the General Counsel. In 1975 he was designated as a senior attorney, and in October 1978 as acting assistant general counsel, procurement law II.

Mr. Berger received the award for the best article published in *The GAO Review* in 1974 and the GAO Meritorious Service Award in 1976.



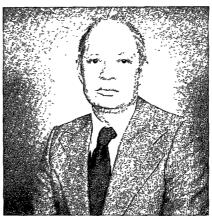
John P. Carroll

John P. Carroll was designated on March 5, 1979, to become manager of the Cincinnati regional office, succeeding Robert W. Hanlon.

Mr. Carroll is a native of New York City and a Navy veteran. He joined GAO in the New York regional office in June 1958 upon graduation from Iona College, where he majored in accounting. Mr. Carroll was a member of the internal audit staff of the Federal Aviation Agency in New York from August 1963 to March 1966, when he joined GAO's Washington regional office. He was with that office over a 10-year period, except for 1 year in 1970-71, when he served in the former Defense Division. He was designated an assistant regional manager in the Washington regional office in July 1972. In July 1976, he assumed the position of manager of the Seattle regional office.

In July 1974 Mr. Carroll attended the Dartmouth Institute. He has also participated in the Brookings Institution Conference for Senior Executives on Public Policy Issues and the Executive Leadership and Management Program of the Federal Executive Institute. In addition, he has participated in programs at Georgetown University and Seattle University.

Mr. Carroll has held several positions in the Northern Virginia Chapter of the Association of Government Accountants. He is a past president of the chapter and in May 1976 received the chapter's Service Award. He is a certified internal auditor and an active Toastmaster.



Seymour Efros

Seymour Efros has been designated associate general counsel in charge of procurement law and transportation divisions of the Office of the General Counsel, effective March 11, 1979.

Mr. Efros will be responsible for the overall planning and direction of the work of the Office of the General Counsel pertaining to matters relating to Government procurement of supplies and services; the construction of public buildings; military housing, highways and public works projects; lease agreements; the sale of Government property, real and personal; bid protest cases; complaints regarding contracts under grants; and, in the transportation area, matters involving movement of Government shipments and personnel by air, motor, rail, and water carriers.

Mr. Efros joined the legal staff of the General Accounting Office in 1959. He attended City College of New York and received his law degree in 1955 from Harvard Law School. Mr. Efros has been admitted to the Bar of New York and to practice before the United States Supreme Court.



George L. Egan, Jr.

George L. Egan, Jr., was designated an associate director in the Financial and General Management Studies Division in March 1979. In his new capacity, he will direct the work of the newly created Government Internal Auditing and Fraud Prevention Group. The activities of this group include reviews of Federal internal audit agencies; liaison with State and local governments, including supporting and promoting the National and the 10 Regional Intergovernmental Audit Forums; and work in the fraud prevention and detection area.

Since joining the General Accounting Office in 1957, Mr. Egan's diverse assignments have included 15 years at three Field Operations Division regional offices. His last FOD assignment was as assistant regional manager at the Washington regional office. He also served 3 years as an assistant director with Logistics and Communication Division, and the last 4 years as an assistant director with the Financial and General Management Studies Division in charge of the Audit Standards/Federal group.

Mr. Egan served in the U.S. Army Finance Corps from 1952-1954. He received a B.S. degree in business administration, majoring in accounting, from Duquesne University, Pittsburgh, Pennsylvania, in June 1957. He has also attended Michigan State University and Columbia University for specialized courses. He is a member of the Association of Government Accountants and the American Accounting Association.

Mr. Egan received the Financial and General Management Studies

Division Director's Award in 1977 and the GAO Meritorious Service Award in 1967 and 1978.



Francis X. Fee

Francis X. Fee was designated on March 5, 1979, to become director of the Field Operations Division. Mr. Fee will assume responsibility when Stewart D. McElyea, now FOD Director, becomes Assistant Comptroller General.

Mr. Fee, a graduate of Villanova University, received his B.S. degree in economics in 1963. In July of that same year, he began his career with the U.S. General Accounting Office and, until 1972, performed a variety of assignments in the former Civil Division. His assignments included audits at the Departments of Interior, Treasury, and Transportation, the National Aeronautics and Space Administration, and the National Science Foundation.

In April 1972 Mr. Fee was reassigned to the Resources and Economic Development Division. In September 1972, he was selected to participate in the President's Executive Interchange Program, working a full year with the American Telephone and Telegraph Company in New York City. In August 1973, Mr. Fee was promoted to assistant regional manager in the Philadelphia regional office and, on April 11, 1975, he was appointed to the position of regional manager, New York.

Mr. Fee received a cash award for superior performance in 1968, an outstanding performance rating and the Career Development Award in 1972, a Special Education Award in 1973, and an outstanding performance rating and the Distinguished

Service Award in 1978.

Mr. Fee is a member of the President's Executive Interchange Association, the Association of Government Accountants, and the American Society for Public Administration.



Arley F. Franklin

Arley F. (Tom) Franklin has been designated as deputy director of General Services and Controller.

Mr. Franklin attended Southwest Missouri State University, California State College at Los Angeles, and received his M.A. from George Washington University in 1978. Prior to joining the General Accounting Office, he worked for the Department of Agriculture and served as an officer in the United States Army.

Mr. Franklin joined GAO in 1963 and was assigned to the Los Angeles regional office. During the course of his career with GAO, he also worked in ID (headquarters and European Branch), OSD and OMPS.

Mr. Franklin has received a Career Development Award and an outstanding rating (1972); two Division Director Awards (1976 and 1978); the OMPS Best Management Contribution Award (1977); a Comptroller General's Award (1979); and was named to Outstanding Young Men of America (1973).



Murray Grant

Murray Grant, M.D., D.P.H., has been named Chief Medical Advisor, Human Resources Division. Although assigned to one division, Dr. Grant provides technical assistance and medical expertise to staff throughout the General Accounting Office whose assignments address medical issues. He also serves as GAO's liaison for medical matters with other Federal agencies and non-Federal organizations.

Dr. Grant served as a medical officer for many local departments of public health before being appointed Director of Public Health for the District of Columbia, a position he held from 1962 to 1969. In 1969 he became executive vice president of Maimonides Medical Center in Brooklyn, New York. From 1971 to 1973 he served as medical director of the Touro Infirmary in New Orleans, Louisiana.

In 1973 Dr. Grant joined GAO's Manpower and Welfare Division as a medical consultant/advisor. Since that time he has provided assistance to every GAO division.

Dr. Grant received his M.D. from St. George's Hospital School, which is part of the University of London, in 1949. He obtained his Ph.D. in public health from the School of Public Health at the University of Toronto in 1950, and was Board Certified in Public Health in 1955.

In 1976 Dr. Grant received an Outstanding Performance Award.



Robert W. Hanlon

Robert W. Hanlon has been designated manager of the Denver regional office, succeding William D. Martin, Jr., who assumed the position of Deputy Director, Field Operations Division.

Mr. Hanlon joined the General Accounting Office in 1958 and was assigned to the Defense Accounting and Auditing Division. He subsequently transferred to the Washington regional office where he became an assistant regional manager. In 1972 he was designated manager of the Cincinnati regional office where he served until the Denver assignment.

Mr. Hanlon served in the Army from 1954 to 1956. He graduated from Northeastern University in 1958 and in 1968 completed the American Management Association's Advanced Management Program. In 1973 he completed the residency program for Federal executives at the Federal Executive Institute and in 1978 attended the Brookings Institution Conference for senior executives on public policy issues.

He is a member of the Association of Government Accountants, the American Management Association, the Federal Business Association of Greater Cincinnati, and the Federal Executive Board. He received the GAO Meritorious Service Award in 1964, 1966, and 1967 and the GAO Career Development Award in 1971.



Walter H. Henson

Walter H. Henson was designated regional manager, Seattle regional office on March 5, 1979. He was formerly deputy director, Field Operations Division. Mr. Henson assumed his new post in June 1979.

Mr. Henson served in the U.S. Army from March 1946 to June 1949 and from September 1950 through December 1951. In 1954, Mr. Henson received a B.S. degree in accounting from the University of Illinois. He also participated in an **Executive Development Program at** Stanford University Graduate School of Business in 1964. He is a CPA (Washington State) and a member and past program director (1974-75) of the National Association of Accountants. Mr. Henson is also a member of the American Accountants Association, the Association of Government Accountants, and the Virginia State Society of Certified Public Accountants.

Prior to joining GAO, Mr. Henson was employed by Price Waterhouse & Co., from 1954 to 1957. He joined GAO in 1957 and served in the Seattle regional office through 1964. He served as regional manager of the New Orleans regional office from 1965 to 1970, and was the regional manager of the Norfolk regional office from 1970 to 1975. Mr. Henson was appointed deputy director, Field Operations Division, in 1975.

He received the Comptroller General's Group Honor Award in 1973, Distinguished Service Award in 1974, and an outstanding performance rating in 1977.



William D. Martin, Jr.

William D. Martin, Jr., was designated Field Operations Division deputy director, effective August 1, 1979.

Mr. Martin served in the U.S. Army from 1953 to 1955. He graduated from Wake Forest College in 1959 where he majored in accounting. He received an M.S. degree in financial management from the George Washington University in 1971, and attended the Advanced Management Program at Harvard Business School in 1974.

Mr. Martin joined GAO in 1959 and has had varied experience in the Civil Division and the International Division. He served as director of the Organization and Management Planning Staff from 1971 to 1973; deputy director for operations in the Manpower and Welfare Division until 1974; director of the Office of Staff Development until 1976; and director of the Office of Personnel Development and Services from January 1977 until July 1977. From July 1977 until his new appointment, he served as manager of the Denver regional office.

He is a CPA (Virginia) and a member of the American Institute of CPAs, the National Association of Accountants, and the Association of Government Accountants. He received the GAO Career Development Award in 1968.



William J. McCormick, Jr.

William J. McCormick, Jr., was designated associate director (management policies), Federal Personnel and Compensation Division, effective March 26, 1979. In this position, Mr. McCormick will be primarily responsible for carrying out GAO's activities in the areas relating to the management of the Federal work force.

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

In 1972 he transferred from a senior audit manager position in Los Angeles to the Organization and Management Planning Staff in Washington, D.C. He served as assistant director, Organizational Development; director, Office of Publishing and Graphic Services; and director, Planning and Analysis Staff before being promoted to director, OMPS.

Mr. McCormick received GAO's Career Development Award in 1971, and GAO's Meritorious Service Award in 1975, and a Director's Award (for his performance in establishing goals and long-range plans for the provision of library services at GAO) in 1977.

Mr. McCormick is a member of the Academy of Management. In May 1977 Mr. McCormick received his M.B.A. from George Mason University.



Brian L. Usilaner

Brian L. Usilaner was designated an associate director in the Financial and General Management Studies Division in June 1979. He is responsible for the National Productivity Issue Area. In this capacity, he provides technical assistance on productivity related studies to the GAO audit staff and conducts special studies on productivity problem areas in the private, State and local, and Federal sectors.

Mr. Usilaner joined GAO in 1971 to direct a Government-wide effort to measure and enhance Federal productivity for the Joint Financial Management Improvement Program. He has also served as special assistant to the Assistant Comptroller General and as assistant director, Financial and General Management Studies Division. Mr. Usilaner was previously with the Office of Management and Budget, Executive Office of the President, for 7 years. He held several positions including, Director of the Government-wide Management Improvement Program, Director of the Cost Analysis and Reduction Unit and Senior Analyst for Manpower Requirements. He was also Executive Secretary to the President's Advisory Council on Management Improvement.

He is an Associate Professor in the School of Business and Public Administration at George Washington University.

Mr. Usilaner received his B.S. and M.S. degrees from New York University in Industrial Engineering and his D. Sc. in Management Science from George Washington University. He has written several

articles on productivity and the use of industrial engineering and behavioral science for solving organizational problems. He is listed in Who's Who in America and Who's Who in Government and the recipient of several awards recognizing his Federal service.



Harry R. Van Cleve

Harry R. Van Cleve was appointed deputy general counsel, Office of the General Counsel, effective April 1, 1979.

Mr. Van Cleve received his B.A., magna cum laude, from the University of Southern California and his LL.B. from Harvard Law School. He is a member of Phi Beta Kappa and of the Bar of the State of California.

From 1967 to 1976, Mr. Van Cleve was a member of the Board of Advisors, National Contract Management Association and from 1968 to 1969 he was a member of the National Council of the Federal Bar Association. He was a Visiting Lecturer, George Washington University National Law Center from 1974 to 1977.

Mr. Van Cleve has held legal positions in the Department of Defense, the Peace Corps, and the General Services Administration, where he was general counsel from 1965 to 1969. In 1971, he was named general counsel of the Cost Accounting Standards Board, and in 1977 was appointed a member of the Renegotiation Board.

Other Staff Changes

NEW ASSISTANT DIRECTOR

Energy and Minerals Division Flora H. Milans

NEW TAX LAW SPECIALIST

General Government Division Rika P. Hoff

NEW SPECIAL ASSISTANT

Office of Comptroller General Warren P. Nobles

New Staff Members

The following new staff members reported for work during the period February 16 through April 30, 1979.

Office of the Comptroller General	Simmons, Carol M.	Opportunities Industrialization Center
Office of the General Counsel	Reid, Jacquelyn N. Stephenson, Reginald L.	National Naval Medical Center Department of Interior
	Van Cleve, Harry R., Jr.	The Renegotiation Board
Community and Economic Develop-	Doherty, Challie S.	Prince George's Community College
ment Division	Kingman, June C.	Reinstated-formerly with the General Accounting Office
Energy and Minerals Division	Libicki, Martin C.	Department of Interior
Federal Personnel and Compensation Division	Martin, Linda J.	Hampton Institute
General Services and Controller	Dittmeier, David A. Finedore, John P.	Federal Aviation Agency Computer Sciences Corporation
	Peterson, Fanita E. Stapleson, Helen N. Wise, Sidney Jr.	Department of Defense Department of Defense General Services Administration
Human Resources Division	Dahlquist, Donald J.	Associated Builders
Management Services	Shager, Merrie C.	Department of Labor
Personnel	Frink, Shirley T.	Department of Health, Education, and Welfare
	Green, Iris I.	Computer Sciences Corporation
	Green, Victoria	Department of Health, Education, and Welfare
	Kenealy, Stephen J.	Department of Transportation
	Lusk, Sandra J.	Department of Transportation
	Robinson, Monica Y. Stroman, Sandra E.	Department of Labor Department of Interior
80	outmin ountil 17	GAO Review/Summer 1979

Program Analysis Division

Anderson, Robert B. Dold, Lorne M.

Hale, Roberta A.

LeBaron, Richard B.

McDermott, James M. Montgomery, Scott L. Nadel, Mark V.

O'Neill, Dave M.

Salmanson, Roxanne M. VanGelder, Susan I.

Williams, Jacquelin L.

Procurement and **Systems Acquisition** Division

Chan, Kwai-Cheung

Reilly, John J., Jr. Resnick, Frederick

Rivera, David Wolff, Charles M.

Philadelphia Regional Chojnicki, Richard A. Office

Grenci, Anthony F., Jr.

San Francisco Regional Office Barger, Thomas Brostrom, Gerhard Estes, Brian Green-Parks, Mary

McKenzie, Alan Nowak, Pauline Wayne State University

Department of Agriculture General Electric Company

George Washington

University

Arthur Young & Co. Cornell University Government Research

Corporation

National Academy of

Sciences Coe College

State University of

New York

Syracuse University

Institute for Defense

Analysis

Internal Revenue Service American University School of International

Science

Air Force Audit Agency U.S. Army Foreign Science and Technology

Center

Duquesne University Indiana University of

Pennsylvania

Defense Logistics Columbia University University of Washington U.S. Department of

Health, Education and

Welfare

Gallaudet College District of Columbia Department of Human

Resources

REGIONAL OFFICES

Atlanta R	andolph, Valerie D.	Master Collectors
------------------	---------------------	-------------------

Boston Ferguson, Lionel A. Reinstated-formerly with

the General Accounting

Office

Walsh, Margaret M. Duquesne University

Dallas Lugo, Jean M. Reinstated-formerly with

the General Accounting

Office

Kansas Fisher, Toni Z. Park College

Los Angeles Vince Cruz, Augustine D. Veterans Administration

New York Bayron, Evelyn National Puerto Rican

Forum

Norfolk Aaron, Sharon R. General Accounting

Office

Seattle Mulvihill, Beverly A. Department of Navy

Washington, D.C. Bronson, Barbara J. Department of Interior

The following are new staff members not previously listed in **The GAO Review**. The **Review** staff regrets that their names were omitted.

Community and
Economic Develop-
ment Division

Jacobs, Penny G. American University

Energy and Minerals Division

ļ

Beachley, Debra Fort Detrick
Gartrell, Neva National Science
Foundation

Griffin, Wanda Department of Energy
Libicki, Martin Department of Commerce
Price, Vincent George Washington

University

Shames, Lisa Syracuse University Welch, Edward Pennsylvania State

University

Wisenfelder, Phyllis D.C. Government

Professional Activities

Office of the Comptroller General

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

Presidential Management Interns, Cluster Group One, on "Political/Career Relationships," Jan. 15.

MIT Alfred P. Sloan Fellows, The Brookings Institution, on "Role and Functions of the General Accounting Office," Jan. 22.

Orientation for new Congressmen on "Role and Functions of the General Accounting Office," Jan. 30.

Washington Semester Students, The American University, College of Public Affairs, School of Government and Public Administration, on "Role and Functions of the General Accounting Office," Feb. 1.

GAO Executive Briefing on ADP on "Implications of Changing Computer Technology for GAO," Feb. 13.

Presidential Management Interns, Cluster Group Six, on "Program Evaluation and Implementation," Feb. 15.

Workshop on State and Local Government Productivity Improvement: What is the Federal Role? (Sponsored by: National Productivity Council, General Accounting Office, Office of Management and Budget, and Office of Personnel Management) on "GAO's View of the Federal Role in Improving State and Local Government Productivity," Mar.

Intergovernmental Administration and Grants Management Seminar on "GAO's Role in Monitoring the Intergovernmental System," Easton, Md., Mar. 18. The Joint Financial Management Improvement Program's Eighth Annual Financial Management Conference on "Rebuilding Public Confidence in Government—

Mar. 19. Industrial College of the Armed Forces 1978-79 Class on "Exter-

The Financial Manager's Role,"

nal Views on Defense Decisionmaking: The General Accounting Office," Mar. 19.

The Water Pollution Control Federation on "The General Accounting Office Role in Monitoring Water Pollution Control Programs," Mar. 20.

New York University International Conference on Science and Technology Policy on "Interactions Between Science and Technology Policy and the Economy," New York, Mar. 28,

Inter-Agency Seminar Group on "Role and Functions of the General Accounting Office," Mar. 29.

Department of Health, Education and Welfare Orientation for New Inspectors General on "Comptroller General's Expectations," Mar. 30.

The Brookings Institution's Conference for Business Executives on Federal Government Operations on "Role and Functions of the General Accounting Office," Apr. 2.

The American University School of Government on "Role and Functions of the General Accounting Office," Apr. 3.

National Graduate University's Nineteenth Institute on Federal Funding on "Federal Research Grants: Maintaining Public Accountability Without Inhibiting Creative Research," Apr. 10.

National Association of Accountants (Washington Chapter) on "Present Overview of the Role and Functions of the General Accounting Office and Implications of Recent Legislation," Apr. 18.

Howard University School of Business and Public Administration on "Role and Functions of the General Accounting Office," Apr. 24.

Government Relations Seminar, B.F. Goodrich Company, on "Role and Functions of the General Accounting Office," Apr. 27. League of Republican Women of the District of Columbia on "Role and Functions of the General Accounting Office," May 7.

Following are recently published articles of the Comptroller General:

"Who Should Set Governmental Accounting Standards? The NCGA Has The Experience and Support" (Oct. 12, 1978, Statement before the Financial Accounting Standards Board Public Hearing on Conceptual Framework for Financial Accounting and Reporting: Objectives of Financial Reporting by Nonbusiness Organizations), Journal of Accountancy, Mar. 1979.

"Grant Audits: A New Vista for CPAs" (adapted from an address before the AICPA National Conference on Federally Assisted Programs on Nov. 8, 1977), Journal of Accountancy, Apr. 1979.

Robert F. Keller, Deputy Comptroller General:

Spoke to third and fourth year students from colleges and universities throughout the country who are spending a semester at American University to study the activities of the Federal Government, Mar. 26.

Participated as a panelist before a National Contract Management Association Professional Education Symposium on "Assuring Ethical Practices in the Federal Procurement—Is It a Problem?" Bethesda, Md., Apr. 5.

John D. Heller, Assistant to the Comptroller General, addressed the following groups:

OPM Executive Seminar on Administration of Public Policy on "The GAO: Evaluation Policy and Program Outcomes," Kings Point, N.Y., Mar. 21.

University of Maryland Management and Organization Theory class on "The Role of the GAO in Assisting the Congress in its Oversight Responsibilities," Apr. 10.

Syracuse University's 25th Annual Washington Seminar, Maxwell School of Citizenship and Public Affairs, on "Management and Program Audits and New Tasks GAO Has Taken On," May 16

Elaine L. Orr, special assistant to Mr. Heller, coconvened a panel, "How Can Intergovernmental Auditing Be Improved," at the 1979 American Society for Public Administration conference. She also served as cocoordinator for the cluster of panels under "The Role of Planning in the Public Sector," Apr. 1-4. Ms. Orr was also reelected as Treasurer of the National Capital Area Chapter of the American Society for Public Administration.

Office of the General Counsel

Milton J. Socolar, general counsel, spoke before the Association of Government Accountants of Washington, Mar. 8.

Seymour Efros, associate general counsel, addressed the following groups:

Fifth Annual FORSCOM Procurement Conference, on "GAO's Role in Contract Protests," Atlanta, Apr. 4.

Section of Public Contract Law, The George Washington University, on "Career Opportunities in Public Contract Law," Apr. 7.

Ronald Berger, assistant general counsel, spoke before the Army Logistics Management Center, Fort Lee, Va., on "Problems in Formal Advertising," Apr. 17.

Michael J. Boyle, attorney-

Michael J. Boyle, attorneyadviser, spoke before the following groups:

Defense Advanced Procurement Management Course on "Prolems in Formal Advertising," Fort Lee, Va., Mar. 20.

Forest Service National Contracting Officer's Workshop, on "Bid Protests before the GAO," Fort Lee, Va., Mar. 26.

Bert Japikse, attorney-adviser, spoke before the Electronic Systems Acquisition Management Seminar of American Institute of Industrial Engineers on "GAO Review of Technically Complex Government Procurements—Promise and Challenge," Apr. 27.

Office of Congressional Relations

Martin J. Fitzgerald, director, addressed various groups on the operations of the GAO: the U.S. Chamber of Commerce, Feb. 26; a CRS orientation session for congressional staffers, Mar. 14; the Office of Chief of Naval Operations,

Mar. 19; a seminar sponsored by American University, Mar. 27; and the Congressional Fellowship Program, Apr. 18.

GAO's role was discussed by Samuel W. Bowlin, legislative adviser, before OPM's Congressional Briefing Conference, Feb. 26; their Legislative Operations Roundtable, Mar. 7; and their Institute in the Legislative Function, May 8. He also met with Dr. Andre Middelhoek, a Member of the Court of Auditors of the European Economic Community to discuss GAO's relationship with the Congress and other agencies.

T. Vincent Griffith, legislative attorney, spoke before groups at the U.S. Chamber of Commerce, Mar. 26, and OPM's Congressional Operations Seminar, Apr. 3.

M. Thomas Hagenstad, legislative adviser, addressed the U.S. Chamber of Commerce, Mar. 7 and May 7, the Federal Executive Institute, Mar. 6, and OPM's Congressional Briefing Conference, Mar. 30

On Mar. 21, Peter J. McGough, legislative adviser, spoke on the role of the GAO before a CRS orientation session for congressional staffers, and the Department of Commerce Technology Fellowship Program on Mar. 29.

Community and Economic Development Division

Doug Hogan, assistant director, spoke on "What Causes Food Prices to Rise? What Can Be Done About It?" before the American Agriculture Movement, Feb. 9.

Dave Jones, assistant director, took part in a panel discussion on "Water Quality Goals—Are They Reasonable?" before the Water Management Association of Ohio, Feb. 28.

General Services and Controller

Vinita C. Mathur, acting branch chief, Office of Information Management, addressed the following groups:

Special Library Association, Washington, D.C. on "Contracting Pitfalls," Dec. 5, 1978.

Association for Systems Management on Integrated Document Handling and Information Services at GAO, Jan. 9, 1979.

Chaired the Joint Spring Workshop on "Contracting and Consulting—From Dust Jackets to System Design," Washington, D.C., Apr. 28, 1979.

Spoke on "Information Retrieval at GAO" at the Annual Records Management Conference, sponsored by the National Archives and Records Service, in Fredericksburg, Va., May 23, 1979.

Energy and Minerals Division

J. Dexter Peach, director, spoke on "Analysis of Effectiveness of National Energy Policies and Goals" before the Society of Petroleum Engineers symposium on Hydrocarbon Economics and Evaluation, Dallas, Tex., Feb. 12.

James Duffus III, assistant director, participated in the Dartmouth Institute Executive Development Winter Seminar in Hanover, N.H., Mar. 1-3.

Richard W. Kelley, senior level associate director, as Chairman of the Professional Audit Review Team, along with the other members of his team (from other agencies), submitted their report to the President and to the Congress on their evaluation of significant aspects of the energy data collection and analysis activities of the Energy Information Administration of the Department of Energy, May 7

Federal Personnel and Compensation Division

Hal Lewis, assistant director, and Bill Graham and Al Huntington, supervisory auditors, spoke on "Military Justice Issues and Problems" before the New York City Bar Association, Committee on Military Justice, in New York, Feb. 26.

Tom Eickmeyer, assistant director, and Janet Lowden, supervisory auditor, discussed FPCD's reviews of military personnel attrition and manpower management before student seminars at the Industrial College of the Armed Forces on Mar. 19.

Financial and General Management Studies Division

Donald L. Scantlebury, director, spoke on activities of the General Accounting Office at the National Chamber of Commerce Corporate Development Program, Apr. 2.

Harold L. Stugart, deputy director:

Spoke on the Fraud Task Force's activities before a breakfast for Defense financial managers, sponsored by the Assistant Secretary of Defense (Comptroller), Mar. 1.

Briefed the Office of the Inspector General, Department of Health, Education and Welfare on the Fraud Task Force's efforts, Mar. 6.

Addressed the Montgomery-Prince George's Chapter of the Association of Government Accountants on GAO's efforts in fraud detection and the use of the "hotline" on Apr. 4.

Served as a panelist for a session on "Corruption, Fraud and Abuse in Public Finance" at the annual conference of the American Society for Public Administration at Baltimore, Apr. 4.

Was elected Program Chairman for the Northern Virginia Chapter of the Association of Government Accountants.

Walter L. Anderson, senior level associate director, was selected to participate in the Joint Fellowship Program sponsored by Brookings Institution and the Commission of the European Communities. From April 9 through May 11, 1979, he will be studying European data processing, auditing, accounting, and budgeting in Germany, England, France, Switzerland, Italy, Luxemborg, and the Commission of the European Communities Headquarters in Brussels.

George L. Egan, Jr., associate director, spoke to the Institute of Internal Auditors, East Tennessee Chapter on Economy, Efficiency, and Effectiveness of Audits, on Apr. 19, Knoxville.

John J. Adair, assistant director, participated in a panel entitled "Legislative Developments in Grants Management" at the Nation-

al Assistance Management Association's conference "Focus on Grants Management" held on Mar. 22, in Arlington.

Robert L. Meyer, assistant director, spoke on "GAO's Perspective on Fraud Prevention" at the 1979 Colloquium of current accounting issues, Beta Alpha Psi, School of Business, Auburn University, Apr. 20.

Ron Raaum, assistant director, was elected Education Chairman for the Northern Virginia Chapter of the Association of Government Accountants.

Ken Pollock, assistant director:

Spoke at a joint meeting of ADP Councils of Northern and Southern California and Nevada. The meeting was held in Las Vegas, Apr. 27. He spoke on the subject of GAO's role in the ADP procurement process.

Was a panelist on "President Carter's ADP Reorganization: Fact or Fiction?" at the American Society for Public Administration's National Conference in Baltimore, Apr. 2.

Spoke to a graduate class in Information Science at the University of Maryland on GAO's work in computer auditing, Mar. 13.

Was a panelist at the orientation program for the newly designated Inspectors General held at the Federal Executive Institute at Charlottesville, Apr. 18. His subject was "Detecting and Preventing Fraud, Waste, and Abuse in Computer Systems, and Computer Security Problems."

Brian Usilaner, assistant director, spoke on Work Force Planning at the National Conference of the American Society for Public Administration, Baltimore, Apr. 3.

Bob Ryan, assistant director:

Was General Chairman of a conference entitled "Emerging Issues—Government Accounting and Auditing" at Sacramento, Cal., on Mar. 26-27. The conference was jointly sponsored by the Association of Government Accountants, the Municipal Finance Officers Association, and the Western Intergovernmental Audit Forum.

Spoke on the GAO Audit Standards on Apr. 25 and 26 at con-

ferences on Federally Assisted Programs sponsored by the Illinois Society of Certified Public Accountants in Springfield and Arlington Heights, III.

W. A. Broadus, Jr., assistant director:

Chaired a two-day workshop, sponsored by the American Accounting Association and the Association of Government Accountants, Mar. 26-27 in New Orleans, on Teaching Government Accounting and Auditing in the Universities and Colleges.

Chaired a panel on "How Can Intergovernmental Auditing be Improved?" at the annual meeting of the American Society for Public Administration held in Baltimore, Apr. 2.

Spoke on Intergovernmental Auditing at the Pacific Northwest Intergovernmental Audit Forum, Apr. 19 in Seattle.

Herbert S. Millstein, assistant director, participated on the program committee for the development of an Institute on Major Problems and Processes, sponsored by American University, for Information Systems and Networks for the Management of Social Service Delivery, May 9-10.

Joseph L. Boyd, assistant director, Kenneth A. Pollock, assistant director, and John W. Lainhart, supervisory management analyst, were awarded certified data processing auditor certificates.

John W. Lainhart, supervisory management analyst, and Barry R. Snyder, management analyst, gave a presentation on a new computer auditing technique they developed "A Simultaneous—Parallel Approach to Testing Computerized Systems" at the Department of Health, Education, and Welfare's ADP Security Officers meeting, Apr. 19.

Mr. Lainhart was appointed Director of Certification of the EDP Auditors Foundation for 1979-81.

Theodore F. Gonter, assistant director, was chairman of three sessions sponsored by the Auditing Project of SHARE, Inc., an IBM users group, at the SHARE, 52.0 Conference in San Francisco, Mar. 18-23.

Richard E. Nygaard and Steve Sadler, supervisory auditors, participated on Mar. 9, in a panel discussion on the "Implementation of the Inspector General Act," at the Annual JFMIP Financial Management Conference. They addressed the auditors' role in fraud prevention.

Mr. Nygaard discussed GAO's organization and audit responsibilities before the Army's Inspector General orientation class on Mar. 15 and Apr. 19.

Joseph H. Myers, management auditor:

Spoke on Applied Methods to Improve Productivity at the Executive Seminar Center, Kings Point, Apr. 4.

Spoke on Federal Role in Improving National Productivity before a doctoral class in Public Administration at the University of Southern California, Apr. 6.

Robert Pewanick, assistant director, and John Reifsnyder, supervisory systems accountant, were elected Directors of the Washington Chapter of the Association of Government Accountants.

William Kennedy, supervisory systems accountant, has been appointed Chairman of the National Research Board of the National Association of Government Accountants.

Charles Gruber, auditor, was elected Director of Communications, of the Northern Virginia Chapter of the National Association of Government Accountants.

Joint Financial Management Improvement Program

Susumu Uyeda, executive director:

Gave a presentation on "The Role of JFMIP" at the Coast Guard Financial Managers Executive Meeting, Mar. 13.

Spoke on "How the Department of Defense and JFMIP Can Work Together to Improve Financial Management" before the Denver Chapter of the American Association of Military Comptrollers, Mar. 21.

Participated in the Emerging Issue Conference of the Association of Government Accountants and talked about "The Role of JFMIP" in Sacramento, Cal., Mar. 27.

Spoke on "Opportunity for Cooperative Audit at all Levels of Government" before the Northeast Regional Meeting of the American Association of Accountants in Amherst, Mass., Apr. 20.

Doris Chew, accountant on assignment to JFMIP from Treasury, gave a presentation on "The Role of JFMIP" at the Regional Workshops on Cash Management—Letters of Credit in St. Louis, Feb. 27 and in Chicago, Mar. 1.

Kenneth Winne, project director: Gave a presentation on "The Certifying Officers Project" at the Department of Defense Inter-Service Accounting Workshop in Indianapolis, Apr. 25.

Was elected a Director of the Washington Chapter of the Association of Government Accountants.

General Government Division

John M. Lovelady, assistant director, spoke on the GAO's role in reviewing paperwork issues before the Federal Information Requirements Management Council, Feb. 13.

Norm Heyl, regulatory reports review officer, and Marla Diamond of his staff, spoke on the GAO review of a Federal Trade Commission bar association questionnaire before the National Conference of Bar Presidents in Atlanta, Feb. 9.

Barbara Cattano, management auditor, was appointed in March 1979, as agency coordinator for the American Association for Budget and Program Analysis. She was also designated in April 1979 as program cochairman for the Northern Virginia Society of Public Administration for 1979-1980.

On March 8, the Northern Virginia Chapter of the National Association of Accountants elected the following GGD staff members to officer and director positions for the 1979-80 Chapter year:

President, Theodore Gearhart

V.P. Administration, Charles W. Culkin, Jr.

Director, Special Activities, Peter Aliferis

Director, CMA Affairs, **Dessie** Kambanides

Human Resources Division

Gregory J. Ahart, director:

Addressed a class of Master of Public Administration students of the Northwestern University Graduate School of Management, Evanston, III., on "The Role of Independent Audit Organizations," Mar. 8.

Addressed the seminar for career public executives and managers on Public Program Management conducted by the Executive Seminar Center, Kings Point, N.Y., on "Evaluating Program Outcomes," Mar. 29.

David P. Baine, assistant director, spoke on "GAO's Role in Auditing Defense Health Programs" before a class at the Naval School of Health Sciences, Bethesda, Md. on Mar. 12.

James E. Gwinn, supervisory auditor, spoke on "GAO's Review of the 1978 Summer Youth Employment Program" and participated in a workshop discussion at the 3rd annual meeting of the U.S. Conference of Mayors Employment and Training Council, Apr. 27.

Michael E. Motley, supervisory auditor, spoke on "Auditing Primary Health Care Programs" before the National Association of Community Health Centers, Feb. 20.

International Division

Frank M. Zappacosta, assistant director:

Was elected in March as President of the Washington Chapter of the National Association of Accountants for the 1979-1980 year.

Discussed GAO auditing procedures, practices, and objectives at a meeting of the Central Pennsylvania Chapter of the Institute of Internal Auditors, Lancaster, Pa., Mar. 26.

Thomas E. Mills, management analyst, conducted a session on the movement of the latest U.S. technology abroad at American University, Apr. 27.

Michael D. Salomon, international relations specialist, coauthored a paper on "Diminishing Field Capabilities: Growing Dilemmas for the Management of Arms Sales," which

was delivered before the convention of the International Studies Association in Toronto, Canada, Mar. 22.

Procurement and Systems Acquisition Division

J.H. Stolarow, director:

Spoke before the Procurement Committee of the National Security Industrial Association held in Clearwater Beach, Fla., Feb. 27. Participated in an orientation program for new Inspectors General at the Federal Executive Institute, Charlottesville, Apr. 18. Conducted a GAO/Industry Advisory Panel on the Government Procurement Process, Apr. 24.

Participated in the Eighth Annual Acquisition Research Symposium, Newport, R.I., May 2-4.

Robert B. Hall, assistant director, spoke on "Mission Budgeting" at the Industrial College of the Armed Forces, Apr. 3.

Leslie L. Megyeri, supervisory auditor spoke on:

"Evaluating the Purchasing Function" before the Purchasing Management Association of Washington, Apr. 17.

"Evaluating the Performance of a Purchasing Department" before the Council of Government's Purchasing Seminar, Apr. 20.

Leslie L. Megyeri, supervisory auditor, Harry Tobin, supervisory management auditor, and Harvey Hittner, auditor, conducted a seminar course in contracting and budgeting for the Washington Council of Community Service Agencies, Apr. 23-27.

Program Analysis Division

Harry S. Havens, director:

Participated in the U.S. Office of Personnel Management's Executive Seminar program entitled "Seminar for Advancing Managers." His topic was "Responsibility an Accountability in Government Programs," Apr. 18, Berkeley, Cal.

Along with Morton A. Myers, deputy director, and Keith E. Marvin, associate director, discussed program evaluation activ-

ities and GAO's leadership role at the Washington Public Affairs Center of the University of Southern California. Mar. 2.

Allan Mendelowitz, assistant director:

Spoke on "Regulatory Cost and Current Efforts in Regulatory Reform" at a Brookings Institution Seminar on Government Regulations and the Economy, Mar. 6.

Served as a peer review panelist for author presentations to the staff of the Joint Economic Committee in the study area of Government Intervention/Government Regulation, Mar. 23.

Wallace M. Cohen, assistant director:

Participated in the Program Auditing and Evaluation Workshop at the ASPA National Conference in Baltimore on Apr. 1.

Participated in a workshop on program evaluation sponsored by the American Association of Budget and Program Analysis, Apr. 23.

Osmund T. Fundingsland, assistant director:

Served as member of a panel on Research Policy at the National Council of University Research Administrators' Regional Meeting in Clearwater, Fla., May 2 and 3.

Served as a resource person in a seminar on R&D at the Federal Executive Institute, Charlottesville, on May 23 and 24. His subject was "Assessing R&D Outputs."

Joseph D. Comtois, assistant director, spoke on Federal program evaluation issues before a graduate class at the University of Southern California, Washington Public Affairs Center, Apr. 9.

Robert Jaxel, assistant director, was chairman of the session on "Government Information: Its Production, Packaging and Marketing" at the National Information Conference and Exposition, sponsored by the Information Industry Association, Apr. 30.

Joseph F. Delfico, assistant director:

Led seminar on program evaluation at the International Monetary Fund Institute's Public Finance Course, Feb. 12. Spoke on evaluation and the GAO at the Washington Public Affairs Center, University of Southern California, Nov. 16.

Harvey Finberg, operations research analyst, participated in a Workshop on Evaluation of Federal R&D Programs at the American University, and examined alternative concepts, approaches, and methods for evaluation of Federal R&D Programs, Jan. 10-11.

Larry E. Hodges, operations research analyst, participated in a Seminar for New Managers, presented by the Office of Personnel Management under their Executive Development Program, Wilmington, Del., Apr. 1-3.

Mark Nadel, social science analyst, spoke on "Regulation of the Insurance Industry" before the annual meeting of the Casualty Actuarial Society of New York, in New York City, Mar. 7.

Waverly Sykes, program analyst, spoke on "Congressional Oversight: GAO's Program Evaluation Function," before the National War College, Apr. 3.

Janet Shikles, program analyst, was awarded the Redlands University Distinguished Service Award for 1979 in Redlands, Cal., on Apr. 21

Field Operations Division

Atlanta

Marvin Colbs, regional manager: Spoke on "Carrying Out Oversight Function—How GAO Interfaces with DOD" to the controller's course of the Air University, Maxwell AFB, Ala., May 15.

Is chairman of the Southeastern Intergovernmental Audit Forum and presided over its May 24-25 meeting.

A.L. Patterson, assistant regional manager, served on the Productivity Improvement panel and spoke at the Anti-Inflation Conference sponsored by the Southeastern Federal Regional Council, Region IV, Apr. 5.

Mario Artesiano, additor, is acting Chairman of the Hispanic Employment Program Coordinators Council of Metropolitan Atlanta and assisted in organizing its May 16 luncheon meeting and awards ceremony.

James Beard, auditor, is serving as President of the Huntsville, Alabama, chapter of the Institute of Internal Auditors and represented the chapter at its 38th International Conference in New York City, June 17-20.

Boston

Fred Layton, regional manager, participated in a seminar on "Management Accountability In the Public Sector," held by the Boston College Institute for Public Service, Mar.29.

Chuck Forbes, assistant regional manager, participated in a workshop on "Job Search Strategies," as part of a Career Conference sponsored by the Minority Government Employees Association and the Boston Fedeal Executive Board, Apr. 2.

Joseph Cohen, audit manager:

Spoke on GAO's review of CETA Youth Programs at a seminar attended by CETA Youth Incentive Pilot Program Directors and Department of Labor and contractor officials in Biloxi, Miss., Mar. 2.

Participated in a panel discussion on CETA Youth Technical Assistance and Evaluation sponsored by the United States Conference of Mayors' Employment and Training Council, Apr. 27.

Joe Veiga, supervisory auditor, and Mike Ress and Joe Evans, auditors, appeared in the CBS "60 Minutes" Segment on GAO televised Apr. 8.

Lou Lucas, 46-year old assistant regional manager, completed the Boston Marathon in 3 hours and 45 minutes on Apr. 16.

Cincinnati

Perry Adair, training coordinator, discussed GAO career opportunities with students at the Indiana University "Career Awareness Program," Mar. 13.

Michael J. Curro, auditor, attended a GAO sponsored Intergovernmental Relations Seminar at Easton, Md., Mar. 19-23.

Harold R. Fine was granted Camp Fire Incorporated's National John Collier Award at ceremonies on April 23, 1979, for "establishing a Matching Camper Fund to help youth in need of financial aid to go to camp" and his most outstanding presentations of the Camp Fire Budget to United Appeal which brought allocations far surpassing previous years.

Chicago

Pete Larson, assistant regional manager:

Addressed the University of Illinois Master of Accounting Science Students Association on the "Functions and Responsibilities of GAO," Urbana, Ill., Mar. 24.

Spoke at the Beta Alpha Psi Governmental Accounting Night at the University of Wisconsin on "The Roles of GAO," Madison, Wisc., Mar. 28.

Jimmie Gilbert, supervisory auditor, participated in a Youth Motivation Program at Dunbar Vocational High School, Feb. 21.

Frank Comito, supervisory auditor, spoke to classes at Chicago's predominately Hispanic Bower High School on "Federal Employment and the Importance of Education." Apr. 4.

Roberta Martin, management assistant, spoke to the Economics Club of the College of St. Thomas on "New Opportunities for Careers for Students Majoring in Economics," St. Paul, Mar. 15.

Dallas

Irwin M. D'Addario, regional manager, conducted a seminar on operational auditing at the Graduate School of Business, University of Texas at Arlington, Apr. 4.

Paul C. deLassus, assistant regional manager, spoke at a meeting of the University of New Orleans Accounting Association, Feb. 1. His topic was the role of the U.S. General Accounting Office in the Federal Government.

Francis Langlinais, supervisory auditor, presented a 5-day course, Auditing Systems Supported by ADP Equipment II, given by the Interagency Auditor Training Center, Mar. 12-16.

James R. Hamilton, supervisory auditor, spoke to the Beta Alpha Psi at Texas A&M University on "GAO: A Unique Audit Role," on Feb. 5.

Denver

Arley R. Whitsell, assistant regional manager, spoke on "The Evolution of GAO's Role in Financial, Performance, and Program Results in Auditing in the Federal Sector," before a national conference of the U.S. Forest Service's Fiscal and Accounting Management & Analysis Staff, Apr. 10.

James H. Basso, auditor, spoke on the "Role of the Accountant in GAO" before the Accounting Students Association at Metropolitan State College, Apr. 19.

James Basso, auditor, and Sherry Brenner, management auditor, represented GAO during Career Day at the Auraria College Complex, Apr. 30.

Detroit

Walter C. Herrmann, Jr., regional manager, took over as president of the Motor City Chapter Association of Government Accountants effective May 14.

Milo L. Wietstock, assistant regional manager, received the local Association of Government Accountants Community Service Award at the Chapter's Annual Awards Banquet held on May 14, in Dearborn Heights, Mich.

William F. Laurie, supervisory auditor, spoke at Western Gerontology Meeting on May 1 in San Francisco. His topic was the "Multi-Program Evaluation Technique Applied to Longitudinal Data Bases on Older People."

Ted Boyden, supervisory auditor, received the local AGA President's Award for his outstanding work in promoting and administering the Chapter's course on Financial Management for Minority Business People.

Melvin McCombs, Sharon O'Neil, Merry Pogros, and Frank Reynolds each received a Chapter Service Award at the AGA Detroit Chapter awards banquet held May 14, in Dearborn Heights, Mich.

Frank Reynolds, audit manager, has been designated as the AGA Detroit Chapter representative on the National Subcommittee on Relations with the AICPA.

Kansas City

David A. Hanna, regional manager, spoke to the Chi Chapter of GAO Review/Summer 1979

Beta Alpha Psi at Oklahoma State University on Mar. 28. His topic was "GAO—its functions, the nature of the organization and the opportunities which exist for accountants in the GAO."

Los Angeles

Michael A. Stenger, supervisory management auditor, spoke on GAO: The Organization and Opportunities, to the Cal Poly Accountants Society of California State Polytechnic University, Jan. 18, and to students in the Department of Business, California State University, during Business and Economics Week, May 3.

Eugene T. Cooper, Jr., audit manager, was a panel member at the MBA Admission Forum in Los Angeles, Dec. 2. He spoke on "GAO Career Opportunities for MBA Graduates."

Richard Herrera, audit manager, spoke on GAO career opportunities at the Federal/State Career Day at the University of California, Riverside, Jan. 25.

Michael P. Dino, supervisory management auditor, gave a presentation about the role of GAO to the Society of Riverside Appraisers on Mar. 2.

James F. Dinwiddie, supervisory management auditor, spoke on the Function of GAO to a chapter of the National Contract Management Association at Norton Air Force Base, Mar.28.

Karl E. Deibel, audit manager, spoke on "Selected Aspects of GAO's Ongoing Review of Drug Abuse Treatment Efforts of the National Institute on Drug Abuse" before the California Association of County Drug Program Coordinators, in Sacramento, Apr. 19.

Frederick Gallegos, supervisory management analyst:

Is teaching a 10-week course, EDP Auditing, at California Polytechnic University, Pomona, during the Spring quarter.

Was presented his certificate, Certified Data Processing Auditor, at an awards presentation of the EDP Auditors Association-Los Angeles Chapter, Dec. 2.

Spoke at EDP Auditors Association Annual Conference held in Salt Lake City, Apr. 25. His topic was "Auditing the Systems Development Life Cycle Process."

New York

Eduardo Escobar, Hispanic employment program coordinator, participated in a career day sponsored by the Federal Executive Board, at the City College of New York, Mar. 15.

Norfolk

Edwin J. Soniat, supervisory GAO auditor, instructed a 2-day workshop on Productivity Measurement for State and local governments, sponsored by the Association of Government Accountants, in San Juan, Puerto Rico, Apr. 5-6.

Donald C. Ingram, supervisory GAO auditor, was appointed Director of Plans and Programs for the Virginia Peninsula Chapter of the Association of Government Accountants for 1979-80.

Philadelphia

Norman Berman, management auditor, served as a panel chairman at a Government and industry workshop on software quality assurance, Apr. 1979. The workshop was sponsored by the Joint Logistics Commanders, Joint Policy Coordinating Group on Computer Resource Management.

San Francisco

Charlie Vincent, assistant regional manager, spoke before the Office of Personnel Management Executive Center, Berkeley, Mar. 8 and Apr. 11. He spoke on the role of GAO as a "control agency" of the Federal Government.

Dana C. McManus, subteam leader, spoke to the faculty and students of Canada College, in San Mateo, Mar. 13. He discussed "The Role of GAO in the Federal Establishment."

Tom Monahan, team leader, spoke at a meeting of the Contra Costa County Philippine-American League Feb. 4. He discussed the consequences to newly arrived aliens of receiving supplemental security income.

Ken Howard, deputy team leader, discussed GAO and Operational Auditing at Peralta Community College, in Oakland, Mar. 8.

David Peltier, team leader, spoke on "Operational Auditing and Proposition 13" at the annual meeting of California's County AuditorControllers' Association in Oxnard, Feb. 14. He also spoke to the Contra Costa County Grand Jury on the same subject, Mar. 22.

Hal D'Ambrogia, assistant regional manager, Dave Peltier and Jack Birkholz, supervisory GAO auditors, of the Western Intergovernmental Audit Forum participated with the Pacific Northwest Intergovernmental Audit Forum in a joint meeting in Seattle, on Apr. 18-20. The theme of the meeting was "The Auditor and the Media."

Seattle

Michael R. Sparks, supervisory management auditor, and David C. Rubin, management auditor, were joint instructors for a workshop entitled "Assessing the Political and Social Environment: A Key to Results-Oriented Audits," presented by the Portland Chapter of the Association of Government Accountants, Mar. 3.

David V. Uberuaga, regional training coordinator, represented GAO as a panel member at a Northwest Cooperative Education Center seminar entitled, "Cooperative Education and the Public Sector: A Partnership for Our Education Future," Bellevue, Apr. 6.

Roger D. Hayman, supervisory auditor, instructed the Office of Personnel Management's course, "Practice Problems in Governmental Accounting," Seattle, Apr. 16-20.

tal Accounting," Seattle, Apr. 16-20.

John Carroll, regional manager, participated in a panel discussion at the Pacific Northwest Intergovernmental Audit Forum on "Does the Press Help or Hurt Auditors and What Should They Do About It?" Seattle, Apr. 19.

Charles D. Mosher, audit manager:

Briefed city officials of Bellevue, Wash., on the potential benefits of establishing a city auditor position, Apr. 13.

Received a plaque from the Pacific Northwest Intergovernmental Audit Forum citing him for "leadership, enthusiasm, and creativity," Apr. 19, during his recently completed two-year tenure as the forum's Executive Secretary. Mr. Mosher's efforts were also formally recognized by the Financial and General Management Studies Division.

Donald A. Praast, supervisory management auditor, is the new Executive Secretary of the Pacific Northwest Intergovernmental Audit Forum.

Washington

Rosemary McKenzie, auditor, was recently elected newsletter editor for the Northern Virginia Chapter of the Association of Government Accountants.

Tony Castaldo, management auditor, spoke on career opportunities with GAO before a career seminar at the American University on Apr. 3.

RETIREMENTS

Anthony, Marie A. Secretary Federal Personnel and Compensation Division

Dunwiddie, John R. Supervisory GAO Auditor FOD - Detroit

Grayner, Ruth C. Secretary Human Resources Division

Medico, Frank Supervisory GAO Auditor General Government Division

Morales, Ignatius J. GAO Auditor FOD-Dallas

Myers, June B. Personnel Clerk Personnel

Norviel, Vernon A. Management Analyst FOD - Denver

Oberjuerge, Nadine M. Administrative Officer FOD - Kansas City

Oliver, James P. Supervisory Management Financial and General

Analyst

Pines, Sam Supervisory Auditor Procurement and Systems

Acquisition Division

Royster, Curtis Motor Vehicle Operator General Services and

Controller

Ruhrmund, Ray D. GAO Auditor FOD-Cincinnati

Weger, Anne S. Secretary Financial and General

Management Studies Division

Management Studies Division

Jo Clark

This column features news for and about GAO alumni We welcome any information on the whereabouts and activities of former GAOers. Please submit copy and current photos to Jo Clark, c/o GAO, or phone 202-275-5534.

Reporting on GAO Alumni

Lucyle Hutt, former secretary (MWD), who now lives in Belhaven, N.C., recently visited Washington and hosted a luncheon for some friends. Among those attending were GAO alumni Edith (Koiner) Dempsey, Dolores Whalen, Glow Watwood, and Hazel Ricketts. Lola Brandy of our Personnel Office also attended. Lola reports that all of the ex-GAOers were looking very fit. Evidently retirement agrees with them.

We hear that another of our former secretaries, Norma Sterkyx Bright, is well and happy in Key West, Fla.

Clyde Merrill, former assistant director of Field Operations Division, and a former GAO Review liaision representative, is still very much interested in GAO. He sent in his membership fee for the GAO Employees Association, expecting some news about GAO and his friends. Clyde says that he and some of the other "old-timers from GAO"-including Frank Weitzel, Larry Powers, and Tom Sullivan, former Assistant Comptrollers General, get together for lunch whenever they can. The REVIEW wants Clyde to send us a picture of the next get-together!

Lloyd Nelson, former associate director in the Manpower and Welfare Division, visited his friends in GAO recently and told of his involvement in building low-income housing for the Fellowship Square Foundation, which was founded by a group of Lutheran Church members.

Other recent visitors to the office were **Herschel Simmons**, former director of the Office of Administrative Services, and **Jim Hammond**, former deputy director of Procurement and Systems Acquisitions Division, both of whom expressed satisfaction with their retirements.

Congratulations to **Jim Rogers**, former manager of our Philadelphia regional office, on becoming a grandfather!

Happy birthday to John Thornton, who celebrated his 69th on April 29. John expects to visit his old stomping grounds around here this



Lloyd A. Nelson

summer to visit friends and play some golf. We look forward to seeing you John.



John E. Thornton

We received a letter from Ray Bandy, former deputy director (FOD), who recently switched apartments in his St. Petersburg retirement community. Reflecting on Ellsworth Morse, former Assistant Comptroller General and Editor of THE GAO REVIEW, Ray wrote: "What a man! Always affable, always helpful, and always working toward improvement of GAO performance and of that of the Government." Ray also sent his regards to friends in GAO.

Bob Schremp, formerly with the Civil Division, wrote a letter to one of our directors outlining some of his impressions of Indonesia based on work he had performed there.

on work he had performed there.

Shirley Leavitt, former secretary (FOD), is visiting her mother in California, but soon will be moving to her retirement home in Leisure World in Silver Spring, Md.

World in Silver Spring, Md.

George Staples has just had a successful arterial by-pass operation on one of his legs. Another operation is essential, we understand, and we wish George a very quick recovery.



George H. Staples

93

Statement of Editorial Policies

This publication is prepared primarily for use by the staff of the General Accounting Office. Except where otherwise indicated, the articles and other submissions generally express the views of the authors and not an official position of the General Accounting Office.

Proposals for articles should be submitted to the editor. Staff should concurrently submit a copy of their proposal letters to liaison staff who are responsible for representing their divisions and offices in encouraging contributions to this publication.

Articles should be typed (double-spaced) and generally not exceed 14 pages. Three copies of the final version should be submitted to the editor. Article subject matter is not restricted but should be determined on the basis of presumed interest to GAO staff. Articles may be on technical or general subjects.

The GAO Review

Edito John D. Heller Assistant Editor Elaine Orr

Administrative Assistance
Office of the Comptroller General

Logistics and Community
Division
Jacob W. Sprouse
Procurement Systems Acquisition
Division
Philip W. Pennington

and the second of the property of the second of the second

Joine Sales Valley Conce

The state of the s

<mark>AD MANAGARAN AN MANAGARAN</mark> KANGARAN KANGARAN MENGARAN KANGARAN KANGARAN KANGARAN MENGANAN KANGARAN KAN

