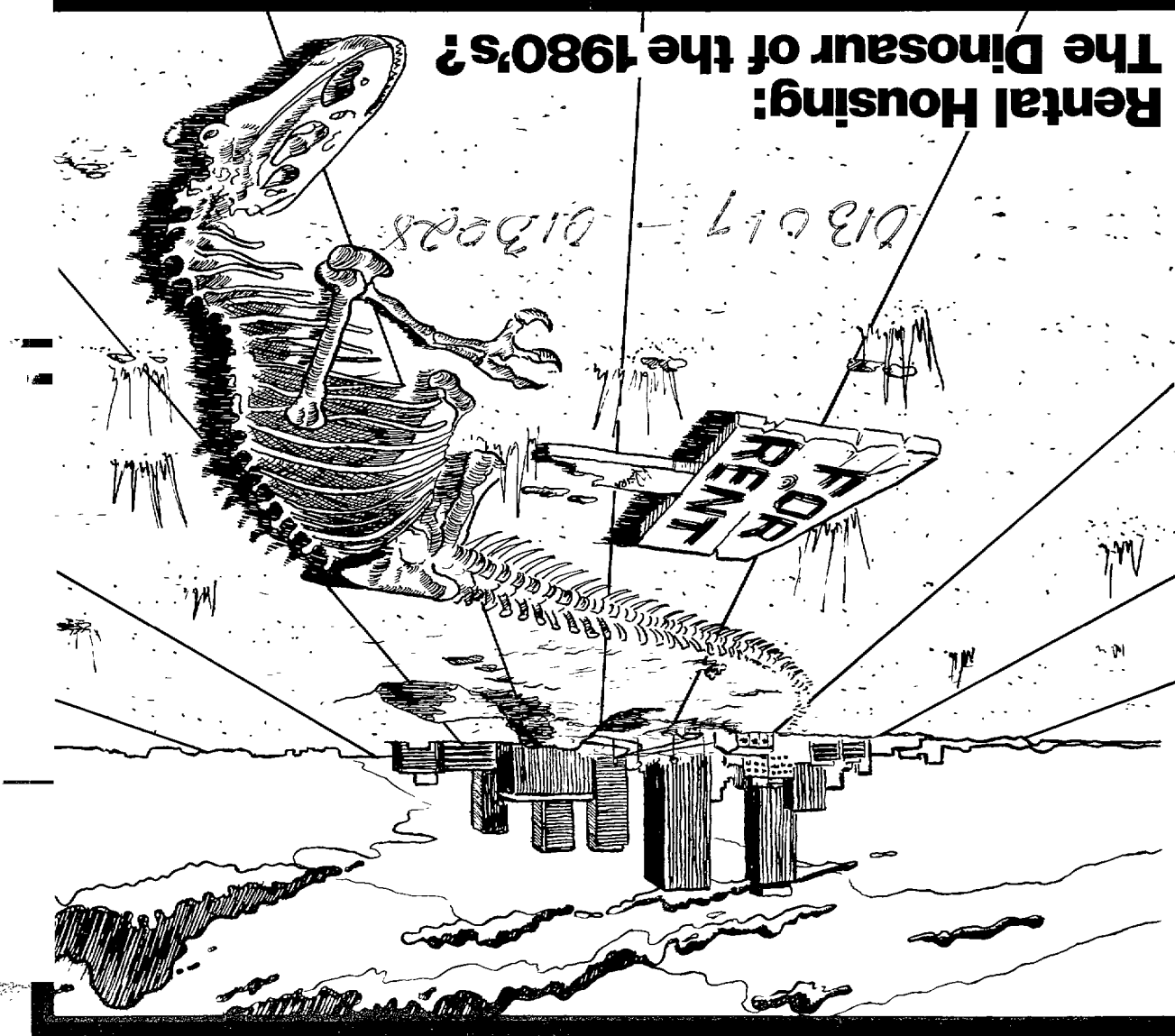


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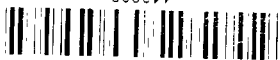


REVIEW

Fall 1980



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Elaine Orr, Assistant
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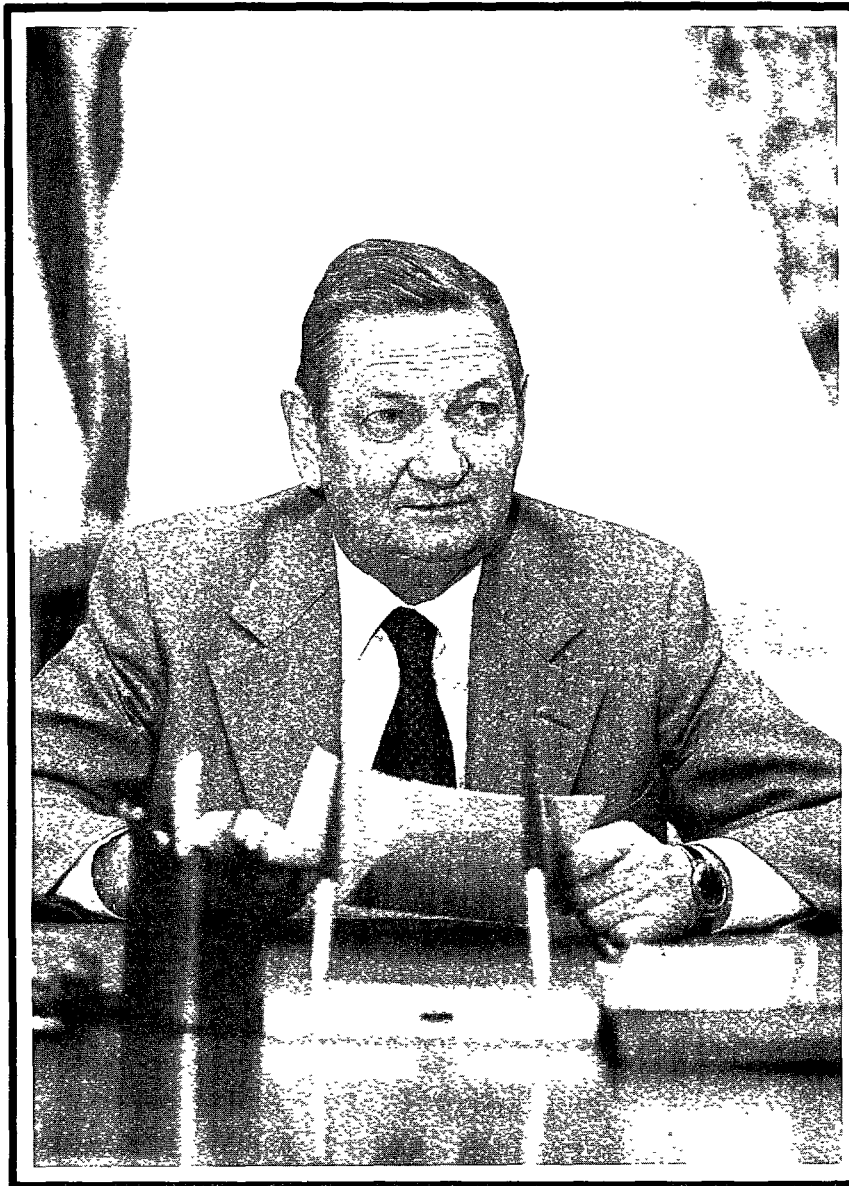
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In last issue's article, "The New York Region: The Apple Still Shines," Bob Barbieri should have been listed as a coauthor. Also, Mr. Barbieri and other members of the NYRO staff provided many of the article's photographs. We apologize for the error.

Robert F. Keller 1913-1980



GAO's first Deputy Comptroller General, Robert F. Keller, died of a heart attack on August 28, 1980. For health reasons, Mr. Keller had been retired from GAO since February 1980 but had continued to serve as a consultant to the Comptroller General, and in that capacity, as the Chairman of the Senior Executive Service's Executive Resource Board.

Except for 3 years' service in the GAO Review/Fall 1980

Navy, Robert Keller's entire career was with GAO. One of a handful of employees who had worked under all five Comptrollers General, he played a central role in transforming GAO into an agency emphasizing the evaluation of federally-funded programs and better serving the needs and requirements of the Congress.

On the announcement of Mr. Keller's death, Comptroller General

Elmer Staats said, "Bob was the personification of a dedicated and industrious career civil servant. His devotion to his work at GAO and to the national interest which he so diligently pursued were truly inspirational." Mr. Keller's biographical profile documents these words.

Mr. Keller began his 45-year Federal career as a GS-3 clerk. During World War II, he served as assistant to the officer-in-charge of the Navy Purchasing Office and later was named its General Counsel.

Returning to GAO, Mr. Keller was a legislative attorney from 1946-1950, when he was appointed an assistant to Comptroller General Lindsay C. Warren. Three years later, he was named principal assistant to the Comptroller General. Mr. Keller was GAO's General Counsel from 1958 to 1969, when he received his presidential appointment to GAO's second highest position.

Upon Mr. Keller's retirement in February, President Carter wrote: "Throughout your public service, you have carried out your responsibilities with dedication, energy, and purpose and have truly earned the respect of your colleagues in Government."

Mr. Keller attended George Washington University and earned his law degree from American University's Washington College of Law while he was working at GAO. He also held a degree from Benjamin Franklin University.

Mr. Keller received a number of prestigious awards during his career, including the Rockefeller Public Service Award in the field of law, legislation and regulation in 1965; the Comptroller General's Award, GAO's highest award, in 1968; the National Civil Service League Award in 1976; and the Benjamin Franklin University Alumni Achievement Award in 1972.

Recalling his longtime, close colleague, Mr. Staats expressed the feelings experienced unanimously by GAO employees who had worked with Robert Keller: "He loved the GAO and he won the admiration and respect of every one of us whose lives he touched. He will be sorely missed."

From Our Briefcase

Getting It All Together

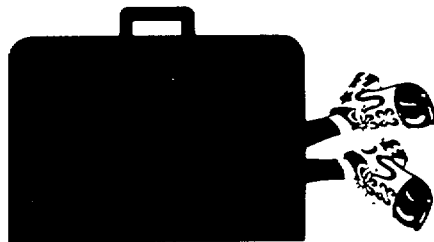
It's 4:15 and there are three unreturned phone messages on your desk and somehow chapter two of your report just didn't quite get finished. What happened? Nothing unusual, according to Michael LeBoeuf, a professor of management at the University of New Orleans. He was feeling frazzled himself, and when organizing a time management seminar for the university he found out why. Essentially, he was trying to do too many things and spending nearly as much time on low priority tasks as high priority ones.

LeBoeuf renounces such time-worn ideas on "success requires burning the midnight oil" and "activity means productivity." His success maxim is: *The secret to doing more is doing less better. Do first things first, get only the most important things done, don't feel guilty about the things you don't do, and take time to smell the roses.*

Are you sitting back thinking "that's easy for a college professor to say, but not for me. I work for Uncle Sam—my schedule is pretty much set for me?" If so, think again. *What you do may largely be determined by the assignment plan in front of you, but how you approach it is more under your control.* Numerous publications on time management, including LeBoeuf's *Working Smart: How to Accomplish More in Half the Time*, offer suggestions for exercising more control over your schedule. Other reading material includes Alan Leiken's *How to Get Control of Your Time and Your Life* and Carl Heyel's *Getting Results With Time Management*.

Authors on the subject offer many helpful hints, but ultimately the methods you develop must be tailored to your own needs and environment. A few of the more common suggestions are outlined here:

- Try to center your time on high payoff tasks.
- Before you leave the office,



make a list of what you intend to accomplish the next day, with priority designations for each item.

- Try to handle each piece of paper only once. If you pick it up, don't put it down without doing something that will help move it on its way.
- Keep a clean desk. LeBoeuf recommends clearing the top and drawers completely and discarding everything not used. Put only the most essential items on or in your desk and periodically review them for potential discards.
- Do a time audit on your work day over a three or four week period—then adjust as needed.
- Try to avoid scheduling your time too tightly. Meetings often take longer than planned or a "quickie" project may be thrown your way. The frustration of "getting behind" is enormous, and besides, if you end up with an unscheduled hour, there is always plenty of work to do at GAO!
- Know how to find what you need when you need it.

Many of these ideas may strike you as little more than common sense. They are. However, if you try the suggested time audit, you may be surprised at the amount of inefficiently used time in your day. If your time is fully well-used, consider joining the ranks of those who write on time management.

OMB Establishes Internal Control Task Force

The Office of Management and

Budget (OMB) has established an Internal Control Task Force as part of the Financial Priorities Program. The Task Force was established in an effort to improve internal controls in Federal departments and agencies and reduce the risk of fraud, abuse, and inefficiency. Recent congressional testimony indicates that an astonishing total of 130,000 cases of alleged fraud and related illegal acts have been found in 21 major departments and agencies over a 30-month period. Individual losses range from under \$100 to over \$1 million. The fact that most of this information comes from field offices, with little awareness of these problems in Washington, indicates weakness in policy level oversight.

The Internal Control Task Force consists of personnel from over 20 selected major departments and agencies. The Task Force members are working in several subgroups to address the following issues:

- Providing assistance to OMB on drafting a new circular on internal control. The group will advise OMB on policy, procedures, implementation and reporting.
- Developing a special guideline to implement the recommendations included in the newly released JFMIP publication on the role of certifying officers.
- Developing Administration policy on the draft of the Financial Integrity Act being considered by the Congress.
- Updating OMB's special guidelines on administrative control of funds.
- Developing special guidelines on internal controls for cash management and debt collection.
- Developing special guidelines for ADP security.
- Considering special guidelines in such areas as procurement and assistance programs.

In addition, OMB is working with the new Offices of Inspectors General in 15 departments and

agencies to increase the awareness of top management of internal control issues. Moreover, much more needs to be done by program and policy managers to meet their responsibilities for assuring the adequate systems. OMB expects the work of the Task Force to be completed by August 1980. This *Review* will contain a summary of recommendations in a later issue. (Reprinted from the July 1980 *News Bulletin* of the Joint Financial Management Improvement Program.)

Working Constructively With Those We Audit

Working in the audit and evaluation fields requires much skill in dealing with those whose office or program is being assessed. To assist other evaluators in the communication process, staff from GAO's Dallas regional office put some of their ideas in writing. The result is *Managing Your Relations With the Agency: A guide on establishing constructive relationships that open doors and get programs corrected*.

Published with assistance from the Office of Policy, the booklet provides some practical illustrations of things to do to promote cooperative relations with agency officials and others GAO audits. If GAO staff are willing to establish and maintain a professional and constructive attitude, we can foster a receptive frame of mind in those whose programs we assess. This will improve chances that our recommendations will contribute to improved operations.

The *guide* has three major components: Getting the Job Off to a Good Start, Managing Relations at the Site, and Managing Post-Site Relations. The final section has some particularly good thoughts on following through after the work product (e.g., report, testimony) is completed.

The booklet was sent to all GAO audit/evaluation staff. Copies are available from GAO's Document Distribution Section in Room 4427.

Knowing Where To Look

GAO's Office of Information Systems
GAO Review/Fall 1980

tems and Services has published a *Federal Government Information Guide*, designed to help GAO staff use materials in GAO's library system and other in-house information services. Emphasis is on obtaining data pertinent to the legislative process. As the *Guide's* introduction explains, it helps the user answer such questions as: "How do I find the legislative history of a bill? What is the organization and staffing of a Government department? What dollar amounts and specific programs are associated with certain sections of the Federal budget?"

The *Guide* is divided into four major sections. The first covers organizational information and how to obtain publications from the legislative branch of the Federal Government, including the GAO. The second provides similar information for the executive branch. The third lists and describes sources of Federal economic and statistical information. The fourth lists computerized information systems available in the GAO library system which can provide added depth to the information available. A subject index at the end is very helpful.

The *Guide* was distributed to all GAO audit/evaluation staff. Although non-GAO readers cannot use the GAO library system or other internal information systems, the *Guide* lets them know what types of information to request from a public or university library. Copies may be obtained from Room 6536, Library ADP Services.

Keeping an Eye on the Economy

A quarterly publication of the Program Analysis Division's Economic Analysis Staff has taken a new meaning as the U.S. economy winds down a somewhat uncertain path in 1980. *The Economic Outlook* discusses major trends and developments, generally focusing on some different major issues each quarter.

The June 1980 *Outlook* embodies a key message in its leading caption—"...The Recession Has Arrived." Main topics discussed are controls on consumer credit, housing and automobiles, financial markets, and the recession outlook.

If you are an individual who steers clear of economic or financial information, you will be pleased to find the *Outlook's* information presented in a straightforward, readable format. More economics-oriented readers will appreciate the concisely presented data.

The *Economic Outlook* is published primarily for the benefit of senior GAO staff. Copies are also sent to other appropriate individuals, agencies or organizations. Non-GAO readers may put themselves on the mailing list by contacting the office of Dennis Dugan, deputy director of the Program Analysis Division, 202-633-7532.

More on Public Management Research

As mentioned in the Summer 1980 issue of the *GAO Review*, the Federal central management agencies sponsored a November 1979 Conference On Public Management Research. In sponsoring the Conference, the Office of Personnel Management (OPM), General Accounting Office, Office of Management and Budget (OMB) and General Services Administration (GSA) were signaling concern about improving the quality, quantity, and usefulness of research pertaining to public management, and exhibiting their special responsibility for leadership in this field.

The Conference was only the beginning of the agencies' efforts. June 1980 marked the first publishing of "Public Management Research," a quarterly newsletter designed to disseminate research news, help coordinate research activities, and generally create a network of those in the field. In his message in the first issue, OPM Director Alan Campbell noted the four agencies hope to increase awareness of this research and prompt greater use of research results.

Just what is public management research? Editor Al Siegel of OPM's Research Management Division is anxious that it not be thought of in purely academic terms. The word he thought best described the types of short articles sought is "action research." Have you had any particularly good ideas lately? Maybe you

helped design a work measurement tool you think is quite accurate, thought of a particularly effective way to run pilot training courses, or developed/fined-tuned an evaluation technique. Why not share this with others?

GAO's Federal Personnel and Compensation Division staff have been providing input to the newsletter, particularly assistant to the director Rosslyn Kleeman. You could discuss ideas with her, or contact editor Al Siegel directly. He is on 202-632-6898 (Room 3A07, OPM, Washington, D.C., 20415). Interested in receiving the newsletter? Contact Siegel.

New Journal on Budget and Finance

If you have a talent for writing and can write about current financial management issues, keep in mind the upcoming publication, *Public Budgeting and Finance*. Scheduled to appear in early 1981, it will serve as a forum for developments and research in Government finance.

Editor Allen Schick of the Congressional Research Service believes it will be relatively easy to get budget material, but harder to get quality financial management articles. He seeks practical articles on such topics as: coping with fiscal crises, accrual accounting, new audit practices, dealing with fraud and abuse, unintended consequences of fiscal restraint, improving productivity through the budget process, and applying generally accepted audit principles. Clearly, these pertain to much of GAO's work.

The Board of Editors contains one very familiar name, that of Harry Havens, Assistant Comptroller General for Program Evaluation. Other Board members represent Federal and State officials, university faculty, and members of public research institutes and private firms. Editor Schick would be happy to provide more details and can be reached on 287-8635.

Air Force Gain Is GAO Loss

Jerome H. Stolarow, director,

Procurement and Systems Acquisition Division, accepted the position of Auditor General of the United States Air Force, effective June 15, 1980. He is the first civilian to ever hold this position.

Mr. Stolarow was appointed PSAD's director in July 1978 after serving as senior deputy director of the division since 1973. Before joining PSAD, he served as Los Angeles regional manager from 1971 to 1973. Prior to coming to GAO in 1958, he was in public accounting. Mr. Stolarow served in the U.S. Army from 1951 to 1953.

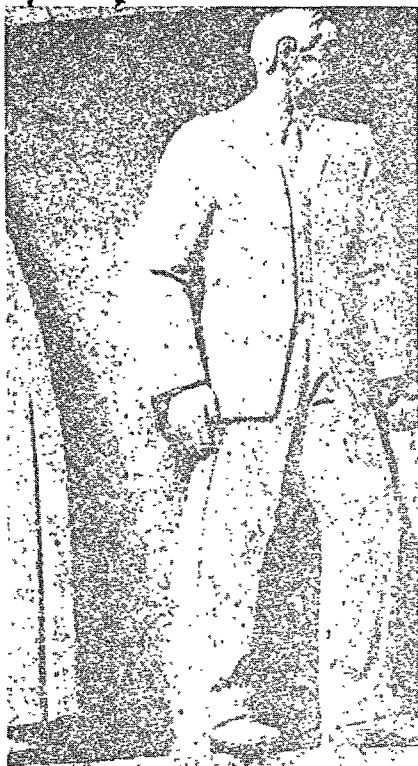
GAO will miss Jerry and we wish him well.

Note From the Editor

The "Bookmark" section of the *Review* has been sparse lately. If you've recently read a good book on evaluation, public administration, accounting, or auditing topics and would like to review it, contact a member of the *Review's* editorial staff for advice on our writing procedures.



JEROME H. STOLAROW



On Location

The Editor encourages GAO staff to submit ideas for this feature. It is not possible for the editorial staff to be aware of all that occurs, yet many events would probably be appropriate for "On Location." Pictures are welcome.

International Auditor Fellows – Second Class Underway

The 1980 Comptroller General's International Auditor Fellowship Program began in June with the arrival of 11 participants from developing countries. They are Gerardo Azofoifa, Costa Rica, C.A.; Mahmoud Said Abdelmoniem Abdel Salam, Egypt; Juniadi Soewar-tojo, Indonesia; Gabriel E. Mmame, Malawi; Lim Eng Chiu, Malaysia; Basudev Lamichhane, Nepal; Josiah Chinwe Asugha, Nigeria; Edgar C. Costibolo, Philippines; Abdul Aziz A. Abod Abo-Haimed, Saudi Arabia; Oraphin Patamalikitkul, Thailand; Kelvin Winston Subero, Trinidad/Tobago.

The first few weeks of their 6-month stay were busy with lectures and seminars on general topics such as the U.S. Government structure and American culture, and more technical subjects, including GAO's planning process and a week-long introduction to operational auditing. Staff from each GAO division and office briefed the group on their function, thus giving the Fellows an idea of how GAO operates and which GAO units could provide assistance in their areas of interest.

By the end of July, the participants had begun rotating among GAO organizations. Clearly a bright group, they are faced with the challenge of learning a great deal in a short time, and then returning to their country to relay this new information to other auditors. In fact, one criterion for selection is that the home audit office demonstrate how the Fellowship nominee will assist in training other audit staff.

The state-of-the-art of auditing varies greatly from country to country, with the U.S. having perhaps the most sophisticated system of the developed countries. In many developing countries, au-

ditions are limited to examining vouchers and certifying financial statements. In the last 5 to 10 years, developing countries have seen their needs for economy/efficiency assessments rise greatly. However, the countries have not necessarily had GAO's long-term benefit of a supportive Congress. Perhaps GAO's greatest luxury is time—nearly 60 years to evolve. Developing countries, whose change has been accelerated by the influence of other nations, find they need to apply modern auditing techniques *now*. In fact, a key reason for needing better audit capabilities is to audit foreign aid receipts!

Given this environment, the International Auditor Fellows are keenly interested in learning GAO's auditing techniques, and how we manage our audits and auditing staff. The Fellows are often most interested in the type of work GAO did in the recent past, especially corporation and comprehensive audits. A number of GAO staff transmit their techniques, while others try to relate the work GAO now does to the Fellows' needs.

The Program cannot be solely concerned with auditing practices. To make the Fellows more comfortable in a strange country, a Sponsor Program provides each Fellow with at least two people who take a special interest in seeing that the Fellows feel at home. The sponsors, and others, find they tend to learn as much about the visitor's culture as the Fellows do about our own.

This year's Fellows will provide feedback on the Program as the 1979 group did. Hopefully, the 1981 Program will be even more relevant to the needs of auditors from developing countries. In any event, all involved in the program learn a great deal each year.

Historically Speaking

How has GAO changed in the 15 years since Elmer B. Staats became the Comptroller General? Quite a bit, you say, but it would take much thought to remember it all. In fact, no individual could spontaneously recount these events. To help

record many changes, and to help pave the way for his successor, Mr. Staats established the GAO Internal History Project.

The team of historians, headed by Roger Sperry (on loan from the Program Analysis Division), has been combing files and interviewing staff for months. Refining the project's scope was not an easy task, and the team sought comments from staff throughout GAO. However, the focus is now clear and the Project results will be published in early 1981.

The publication will be divided into three major sections. Part I addresses how GAO has served the Congress and helped make Government more accountable. It deals with such key areas as the change in the focus of GAO's work, efforts to strengthen evaluation in the agencies, overall financial management improvement, and GAO's role in the Federal Election Campaign Act of 1971. The second part talks about internal agency management during Staats' tenure, including major organizational changes and the institution of strategic planning. Part III discusses trends in the work GAO produces and changes in the composition of staff who do the work. This segment will deal with the move to teams as the standard way of organizing the work, as well as changes in regional office structure, and the efforts in the legal decisions and services area. A final portion will highlight GAO's current status and future challenges.

Project staff realize that the most thorough study cannot be comprehensive. Nonetheless, they are communicating with many staff to ensure thoroughness and accuracy. In undertaking their work, they have unearthed many pieces of information. One has been transformed into an article in this issue, "Expenditure Analyses by GAO: An Idea Whose Time Had Not Arrived."

Whatever the results, the chance to write a history of an agency's 15 years with one boss is unique in Washington, D.C. Watch for the publication in February 1981.

Congress of Auditors Meets in Nairobi

Every 3 years the Auditors General of most countries meet under

the auspices of the International Organization of Supreme Audit Institutions (INTOSAI). The Kenyan Auditor General hosted the 1980 meeting, which was held in Nairobi. Over 200 delegates from more than 100 countries met to discuss papers prepared on four themes. The themes were

- applying computer systems in budgetary accounting and financial controls,
- the problems of adopting and implementing modern audit techniques in developing countries,
- financial control in the international supranational field, and
- efficiency and effectiveness control of public enterprises.

Over 100 papers were prepared, roughly 25 on each topic, and were translated into the Congress' four official languages—English, French, German, and Spanish. Since the papers are received well before the Congress begins, summaries are prepared, making it easier for the delegates to discuss the topics. Because of many languages spoken, delegates have simultaneous interpretation equipment which permits them to communicate easily.

GAO plays an active role in INTOSAI. Comptroller General Staats is on its Governing Board, and Assistant Comptroller General John Heller edits INTOSAI's *International Journal of Government Auditing*, which is published jointly by the U.S., Canada, and Venezue-

la. (INTOSAI funds pay for printing and distribution.) In fact, the GAO International Fellowship Program is open only to developing countries who belong to INTOSAI.

In attending the Congress, Staats, Heller, and Elaine Orr (Fellowship Program Director) found that many, if not most, of the participants look to GAO for auditing guidance. They were often familiar with GAO's Audit Standards, and many had patterned their organizations after GAO. This has become more apparent even in Washington, where Jim Klapp of GAO's International Division finds himself scheduling more foreign visitors to spend time in GAO. In fact, many of the Congress' delegates approach the GAO delegates to inquire about additional assistance.

The Congress offers a relatively rare opportunity for delegates from many nations to meet in an apolitical setting to discuss a topic on which nearly every nation can agree. The topic is the need to have good control systems which enable the country to get the most for its money. Even given the international communication fostered by the Congresses and the *Journal*, it is still unusual to see the extent of common thinking on the issue.

The 1983 Congress will be held in the Philippines. Between now and then, INTOSAI members will keep in touch through the *Journal* and regional meetings. GAO staff can expect to see a number of the delegates as they visit Washington to learn about GAO's techniques.

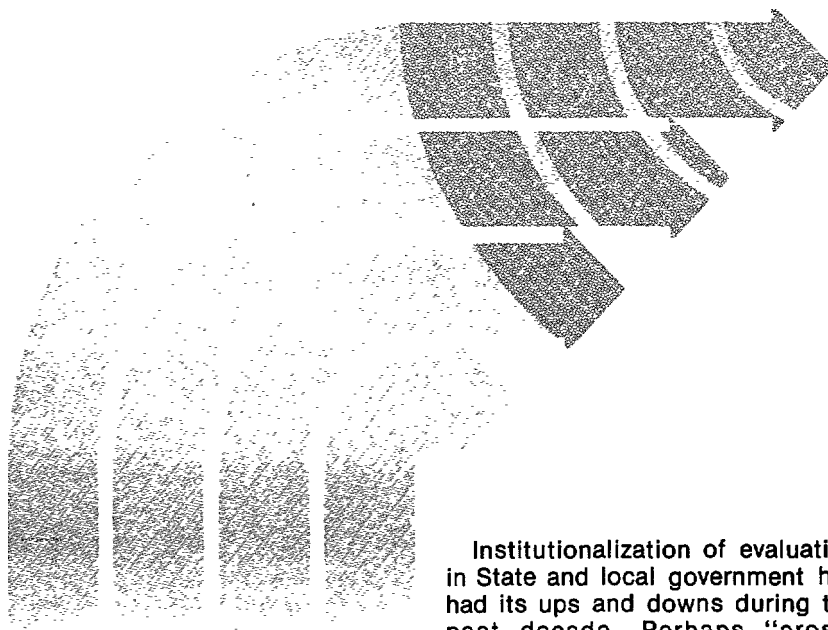


Mr. Staats and representatives of two other audit offices, Josef Selbach of Germany and Jorg Kandutsch of Austria, discuss congressional activities with the Vice-President of Kenya, Mwai Kibaki, on the left. The Congress was formally opened by Kenya's President, Mr. David A. Moi.

Trends in Evaluation

Keith E. Marvin

Mr. Marvin is the associate director for program evaluation in the Program Analysis Division.



Institutionalization of evaluation in State and local government has had its ups and downs during the past decade. Perhaps "cross-currents" would be more accurate than "trends" to describe evaluation in this arena.

Legislative Initiatives

The creation and growth of the Legislative Program Evaluation Section (LPES) of the National Conference of State Legislatures (NCSL) has paralleled the establishment of new offices in many States to support the legislature in its reviews of programs. This has been stimulated by the movement in NCSL to reestablish accountability of State executive agencies for Federal grant funds flowing into the States. A document just issued by NCSL, "A Legislator's Guide To Oversight of Federal Funds," says, "State legislature and Congress share a critical role in reestablishing this kind of

agency accountability. As partners in the Federal system, their cooperative oversight efforts can guarantee that Federal grant programs are effectively and efficiently managed." The report also states that in addition to professional legislative fiscal staffs in all 50 States, more and more State legislatures are increasing their oversight activities through expansion of post-audit efforts into performance review; establishment of separate program evaluation units; and review of agency rules and regulations, and "sunset" reviews of State agencies.

The report was prepared by the NCSL Fiscal Affairs and Oversight Committee. This Committee also prepared a study of sunset experiences in the 34 States that had instituted some form of sunset law by 1980. In this report the Committee states, "if sunset is viewed as a means to force systematic and thorough legislative review of Government activities, it can indeed

have a beneficial effect of State government and policymaking. It

- compels the legislatures to evaluate and exercise oversight responsibilities;
- forces the legislature to take affirmative action to recreate an agency facing termination;
- institutionalizes the evaluation process;
- increases the opportunity for agency improvement and modification emphasizing effectiveness and efficiency, not termination; and
- creates an incentive for agencies to implement corrective administrative changes on their own."

The report cautions, however, that when viewed solely as a process to reduce Government size and spending, sunset's cost could outweigh its benefits. Since the first State sunset law was passed in Colorado in 1976, expectations for evaluation have been closely tied to expectations for sunset. With the issuance of this NCSL report, it appears that the stage is set for an exciting and constructive growth of evaluation's role in the work of the State legislatures.

Managing Federal Assistance

Paralleling these State initiatives is evidence that the U.S. Congress recognized past erosion of the oversight role of State legislatures and that it will cooperate in restoring this important part of the oversight process over Federal grant funds. For example, the Congress has taken an important step toward clarifying legal and procedural relationships in the Federal Grant and Cooperative Agreement Act of 1977. Among other things, this act required the Office of Management and Budget (OMB), in cooperation with the executive agencies, to undertake a study to develop a better understanding of alternative means of implementing Federal assistance programs, and to determine the feasibility of developing a comprehensive system of guidance for Federal assistance programs. In its report to the Congress, OMB states, "the help of Congress is needed to

improve Federal assistance management, since many problems are unanticipated consequences of statutes." With regard to evaluation, OMB states, "all general assistance guidance should be evaluated on a regular basis, something that is frequently not done now. Questions ranging from the need for the policy to the adequacy of implementation by assistance agencies need to be addressed. Assistance agencies should participate in all evaluations, and there should be opportunities for strong recipient participation." OMB points out that, with regard to assistance-related research, serious gaps exist in the current understanding of assistance, and the needed research is beyond its capabilities to handle. These areas include comparisons of assistance to other techniques for achieving national objectives, the effects of assistance on various types of recipients, and the effects of assistance on the national economy.

Needed: Trained Evaluators

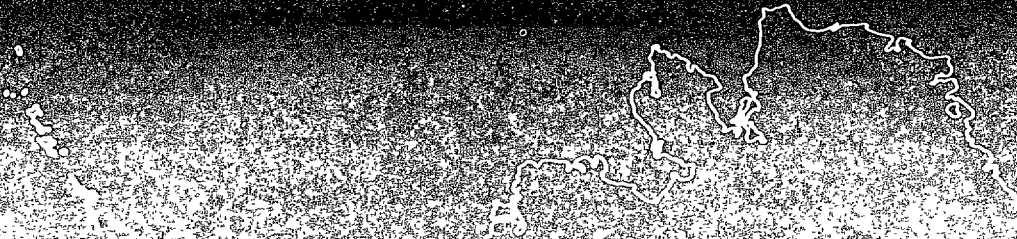
It has often been stated that there is a shortage of analytically trained staff in Government to perform the necessary evaluations. Training programs are being improved in such Government agencies as the Office of Personnel Management, and sponsored by organizations such as the Council of State Governments.

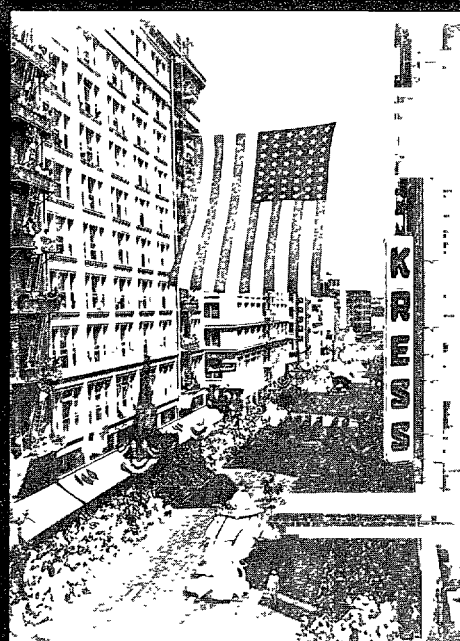
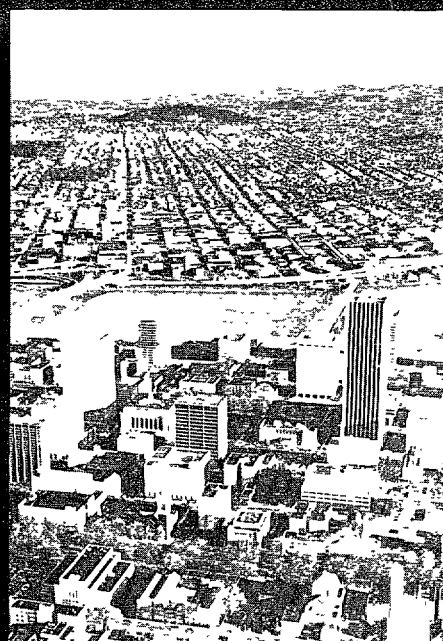
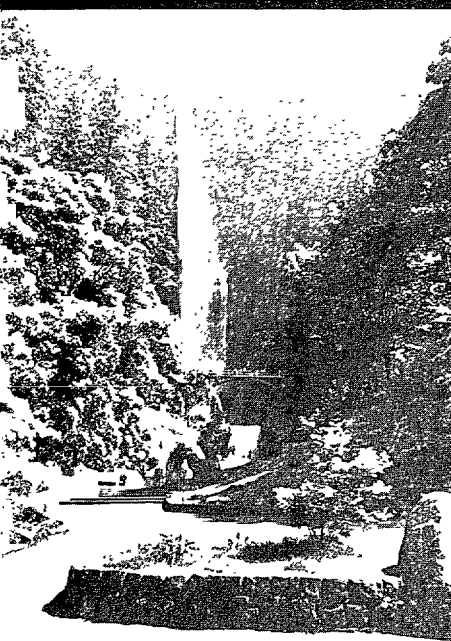
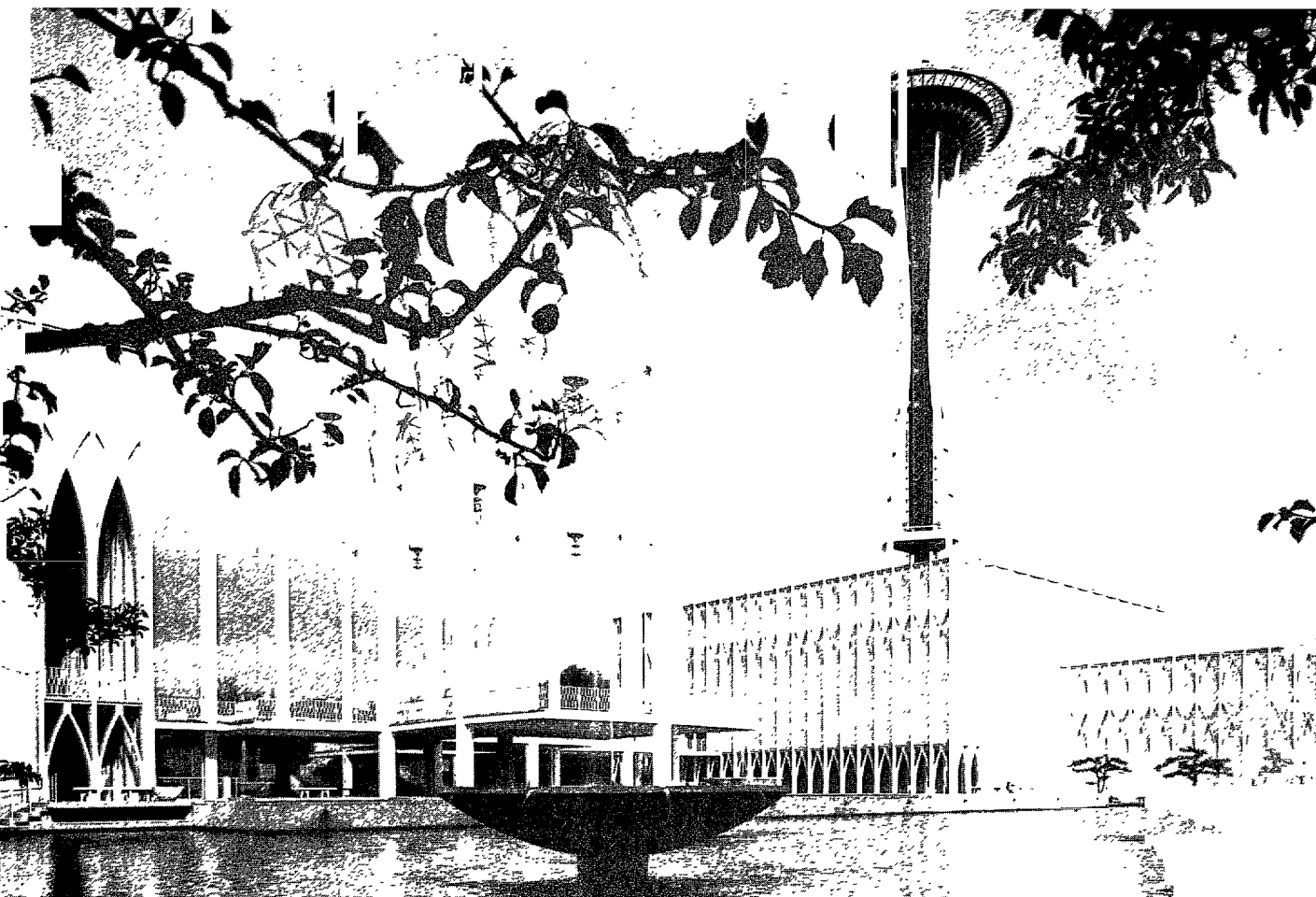
A *Directory of Evaluation Training* published under the auspices of the Evaluation Research Society, lists a large number of major universities where graduate programs in fields such as psychology, education, and public administration offer graduate specialities in evaluation. This will help make it possible for governments to hire the necessary trained staff to assist in problem definition and establishment of acceptable effectiveness measures, as well as the more traditional methods of data collection and analysis. In the future, evaluation training will include more emphasis on the importance of communication of evaluation results so that decisionmakers can make more effective use of this information.

It can be concluded that the infrastructure and resources for much more effective evaluation of Federal assistance programs is in place. It remains to be seen how well the challenge will be met by evaluation and program management at Federal, State and local levels. It appears that there is still a need for the development of models, and demonstrations of cooperation among program management and evaluators at the various levels of administration of Federal grant programs.

The Seattle Region The Most Livable Corner of the Land

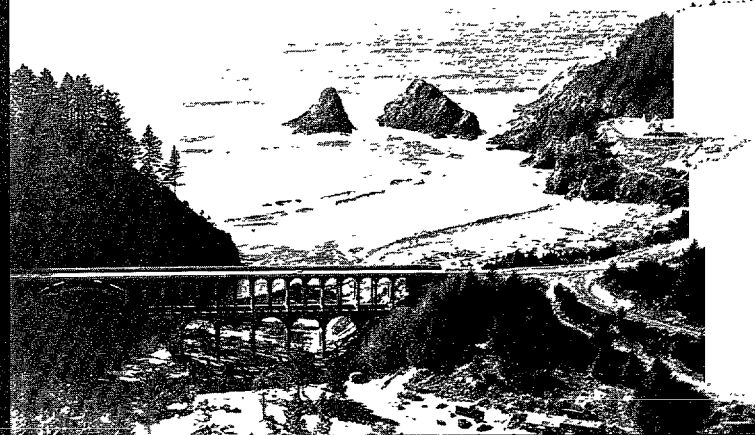
This article was written by Howard Boock, with advice and assistance from Al Finegold, Jean Martin, and Gary McGill, and administrative support from Jacqui Kleffman. Thanks also to the many Seattle, Portland, and Anchorage staff members who submitted photographs and other material and shared their ideas and experiences.



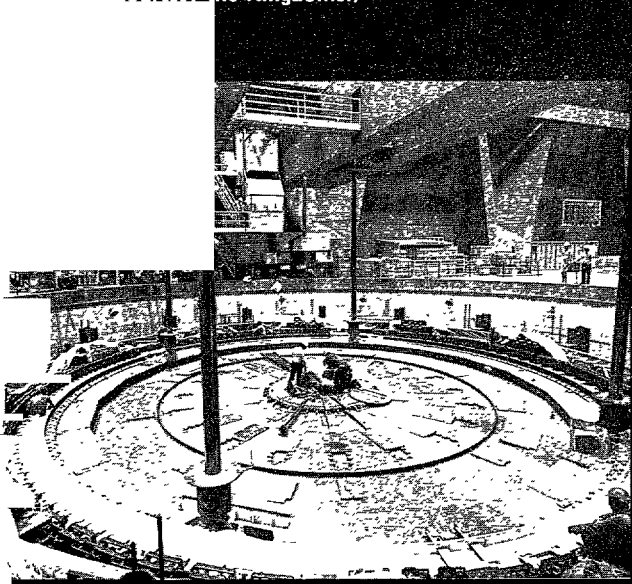


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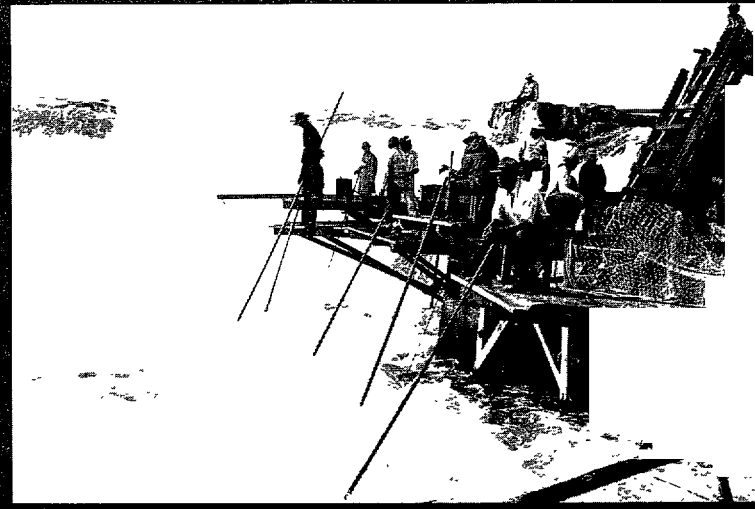
1. Seattle's Pacific Science Center features space-age displays.
(Photo courtesy Eduardo Calderon.)
2. Discovered in 1805, Multnomah Falls is Oregon's highest waterfall.
(Photo courtesy Portland Chamber of Commerce.)
3. Downtown Portland, Oregon.
(Photo courtesy Portland Chamber of Commerce.)
4. Portland's annual Rose Festival.
(Photo courtesy Portland Chamber of Commerce.)
5. HACETA Head lighthouse, named for a Spanish explorer.
(Photo courtesy Portland Chamber of Commerce.)
6. A generator at Grand Coulee Dam.
(Photo courtesy Dept. of Interior.)
7. Fishing at Celilo Falls, Oregon.
(Photo courtesy Bureau of Indian Affairs.)
8. Seattle's Science Center monorail moves 1.2 miles in 95 seconds.
(Photo courtesy the Seattle Center.)
9. The Kingdome seats 65,000 football fans.
(Photo courtesy the Kingdome.)



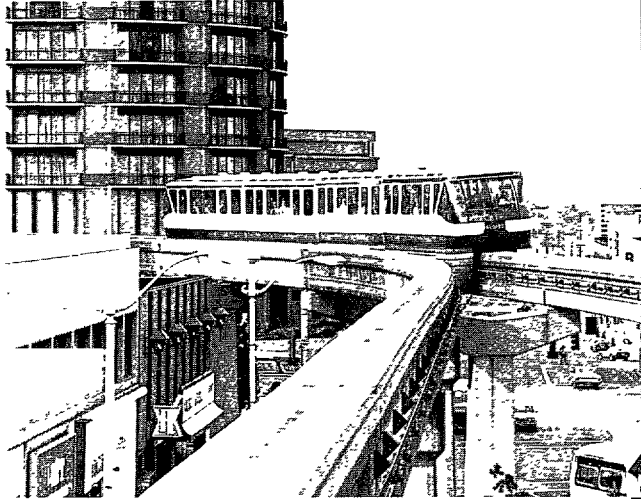
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This is the ninth in a series of articles on GAO's regional offices.

Contrary to popular beliefs, the people of the Northwest do not have webbed feet from too much rain, and the whole area is not covered with volcanic ash, despite the recent eruptions of Mount St. Helens. We hope to dispel some of these notions and give you a better idea of the work we do, our environment, and how we live in this beautiful corner of America.

The Region At A Glance

Covering about 500 miles from the beaches of the Pacific Ocean, across two mountain ranges, farmlands, desert, and Hells Canyon on the way to central Idaho, and about 600 miles from the California border north to Canada, the Seattle region includes some of the most diversified activities and beautiful scenery in the world. Add to that the State of Alaska, which is one-fifth as large as the lower 48, and you have a combination of timber, minerals, oil, water, fishing, agriculture, industry, and a natural beauty that cannot be equaled.

The undeveloped resources of the region, the expansion of the Northwest's economy, and the reputation for a high quality of life in the area have led to recent economic growth and brought many newcomers to the area. Estimates for the next decade forecast an increase of 400,000 people in the Seattle area alone.

History of Seattle

In 1851 the original settlers, the Denny family, landed on the site of Seattle's Alki Point across Elliot Bay. Some of the party then moved east across the bay and settled at the present site of Pioneer Square, near downtown Seattle. Here they made friends with the Suquamish tribe and named their settlement Seattle in honor of Chief Sealth, the Suquamish leader. Not long afterward, Henry Yesler saw that area as a suitable place to build a sawmill. With the deep water of Elliot Bay



The Pacific Ocean stretches along the four States of California, Oregon, Washington, and Alaska. (Photo courtesy Portland Chamber of Commerce.)

below the settlement and forests on the hills immediately above, he selected a site near Pioneer Square. Part of his deal with the settlers was a right-of-way permitting him to slide logs down the hill to the sawmill. This became known as "Skid Road"—a term later absorbed into the American vocabulary as "Skid Row," to designate that section of a town frequented by the less fortunate. The name Skid Road was later changed to Yesler Way.

With an influx of lumberjacks, trappers, and prospectors, Seattle grew to a fair-sized town by 1870. The business district, however, was destroyed by fire in 1889, when a glue pot spilled in the basement of a cabinet shop. The town was rebuilt several blocks back from the waterfront on a higher elevation, and the lower area, covered over by streets and buildings, became an underground level. Today it is still shown to tourists as an underground city, complete with the original, now Pompeii-like, storefronts.

In 1893 the Great Northern Railway completed its transcontinental line, and Seattle became an important supply and send-off point for prospectors heading for the Alaska gold rush. In 1897, with much publicity, the steamship "Portland" arrived in Elliot Bay loaded with a ton of gold from the Yukon. Thus began a flourishing trade with Alaska, and

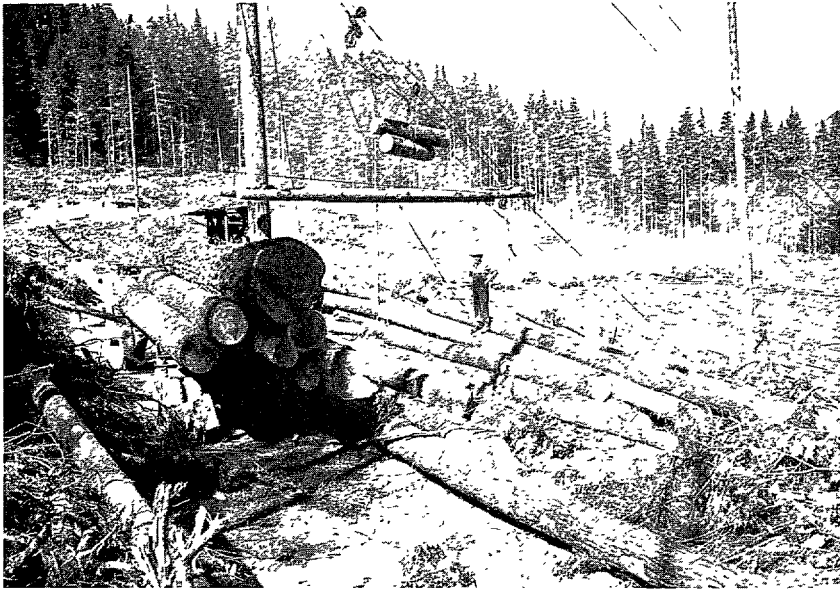
Seattle soon became a port of entry and gateway to both the Orient and Alaska. Elliot Bay, with depths up to 600 feet, is considered one of the great natural harbors of the world. It has been a major factor in bringing the region a large share of world trade.

The year 1916 was a very good year in Seattle's history. The Corps of Engineers completed the Government Locks to connect the fresh waters of Seattle's Lake Union, Salmon Bay, and Lake Washington to the salt waters of Puget Sound. Also in 1916, a young engineer, working in a red barn in south Seattle, started the Boeing Airplane Company.

Seattle continued to grow steadily, and in 1962 the World's Fair brought in millions of visitors. The resulting publicity highlighted the Seattle Center, with its Pacific Science Center, Opera House, Space Needle, and recreation and convention facilities. Directly across the street from the Seattle Center is the home of GAO's Seattle regional office.

The Northwest Today

Timber production is extensive in the region—about half the lumber, plywood, and particle board produced in the United States comes from here. Agricultural products, manufacturing, commercial fishing,



Approximately half the nation's lumber is produced in the region. (Photo courtesy U.S. Forest Service.)



Boeing Corporation, a major industry in the Seattle region, produces commercial jets, computers, and missiles. (Photo courtesy Boeing Corporation.)

recreation, and tourism are also prevalent. Our dependence on water is significant. The ocean and rivers provide fish, transportation, and hydropower, and the rain is needed by the forests and farm crops. Part of the area's dependence on water is the import/export trade that has developed over the years. Seattle, Tacoma, and Portland are all involved in extensive foreign trade, as their geographic locations are a day and a half closer to the Orient than California ports. This advantage becomes even more important with the expected resumption of trade with the People's Republic of China. Thanks to Seattle's foresighted Port Commission, Seattle has become the number one container port on the west coast and second only to New York for the entire United States. The Port activities include 18 major ocean terminals, the recently modernized Sea-Tac International Airport, a 1,500-pleasure boat marina, and a 500-boat terminal for commercial fishing boats.

In addition to extensive foreign trade and timber-related activities in the area, another major industry is the Boeing Corporation, which produces commercial jets, computer services, hydrofoils, and missiles. In the late 1960's, Seattle depended heavily on employment at Boeing, but fluctuations in orders affected Seattle's economy. This prompted the infamous billboard: "Will the last person to leave Seattle turn out the lights?" Boeing is still one of the largest employers in the area, but the growth of other industries in the area has lessened Seattle's dependence on the corporation.

With the extensive commercial fishing off the Oregon, Washington, and Alaska coasts, seafood processing and distributing are major activities in many area cities. Over 200 species of fish and shellfish are processed, especially salmon, crab, oysters, clams, and ocean fish.

In contrast with the fertile valleys, dense forests, and industries of western Oregon and Washington, the eastern halves and much of Idaho are characterized by semiarid climate, sagebrush, and rolling wheat country. Eastern and central Washington alone have more than 1 million acres under irrigation, largely from the controlled waters of Grand Coulee Dam.

Of course, the region's most recent noted event occurred in southwest Washington on May 18, 1980—Mount St. Helens erupted. Considerable amounts of volcanic ash were blown over eastern Washington and northwestern Oregon with lesser amounts over the northern half of the United States, and it is believed that over 50 lives were lost. Standing trees, equivalent to 1 billion board feet of lumber, and 170 lakes, 3,000 miles of streams, 1,800 miles of roads, and 17 bridges were destroyed or damaged. Most areas in the Northwest have largely recovered from the initial ash covering, but the volcano is still active and further eruptions may occur.



Mt. St. Helens first erupted on May 18, 1980. (Photo courtesy U.S. Geological Survey.)

Climate

Known as the "Evergreen Empire," the name refers to the lush evergreen forests on the Olympic Peninsula and generally throughout the western halves of Washington and Oregon. The rain forests, lying on the west side of the Olympic Mountains, get over 200 inches of rain a year. The Seattle area, however, is between the Olympic Mountains on the west and the Cascade Mountains on the east, and is fairly well protected. Generally, the winters are mild, with an average temperature of 45°. Precipitation tends to be light, and temperatures below 20° are rare. Summer temperatures average about 65°, and light drizzles are not uncommon even in the warm months.

Western Oregon is much the same as western Washington, but Oregon experiences slightly warmer summers and cooler winters. Both eastern Washington and Oregon have semiarid climates, with much greater temperature fluctuations and as little as 6 inches of rain a year in some places.

Alaska, of course, has extreme winter weather. Also in the extreme are its days and nights. In Barrow, the sun rises May 10 and doesn't set until August 2. When the sun disappears at noon on November 18, it does not reappear until noon on January 24.

Recreation and Sports

Mountain climbing, skiing, and water-related sports are very popular

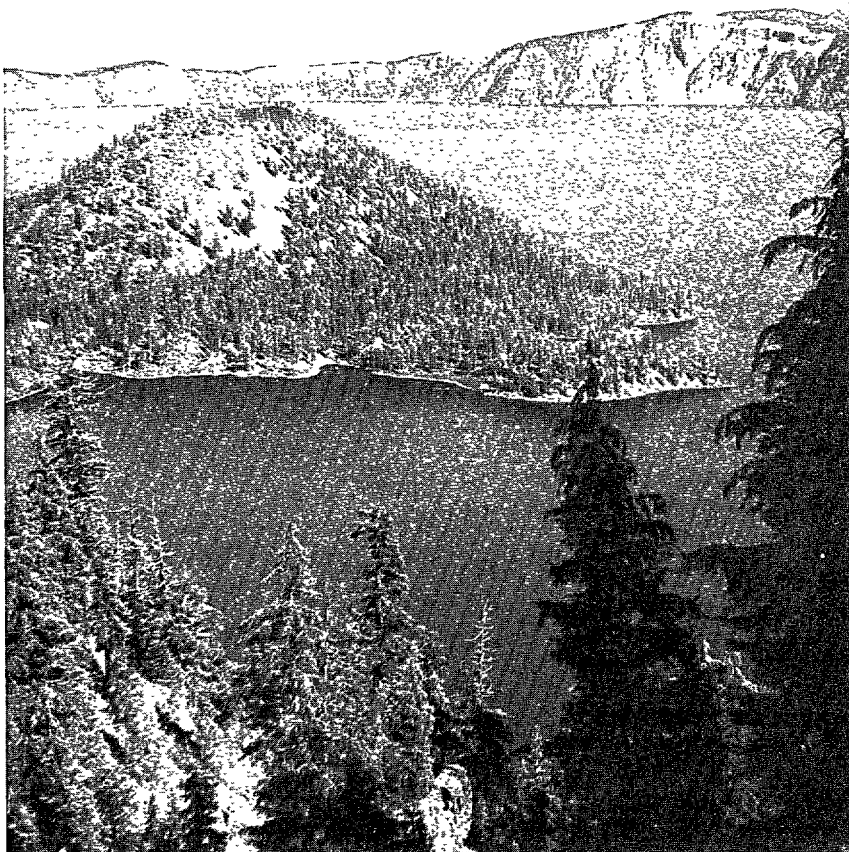


Over 200 species of fish and shellfish are processed in the extensive commercial fishing market. (Photo courtesy Seattle-King County Convention & Visitors Bureau.)

lar in the Seattle region. Twelve ski areas are within an hour's drive of Seattle, and many operate 7 days a week (with lighted night skiing) at the season's peak. In the summer, camping, boating, water skiing, and fishing are all popular pastimes. The San Juan Islands, within 100 miles of Seattle, are well-known vacation spots for boaters from throughout the west. The Seattle area is considered the bicycle and boating capital of the nation, with more bicycles and

boats registered per capita than in any other location. Puget Sound, especially Hood Canal, has nearly every species of underwater plant-life—a haven for scuba divers. Lakes, State parks, five national parks, and marine parks cover the Northwest; residents and tourists use them so extensively that reservation systems are needed at some.

Spectator sports are also popular. We have four major league teams—the Seahawks (football), the Mariners (baseball), the 1979



A good example of the “evergreen empire” is shown here around Crater Lake in Oregon. (Photo courtesy Crater Lake National Park.)

world champion Supersonics (basketball), and the Sounders (soccer). Other spectator sports include horseracing at Longacres, automobile racing at the Seattle International Raceway, the annual unlimited hydroplane race, and a variety of sports played by teams from the University of Washington.

Brief History of the Regional Office

GAO first assigned resident auditors to Seattle in August 1942, when it opened its War Contracts Project Office. In April 1943, G. Ray Bandy transferred from Edmonton, Alberta (Canada), to take over the Seattle Project Office. Ray describes that early period:

The GAO and the Truman Committee were principally concerned with the cost of con-

structing a trans-Canadian oil pipeline to Prince Rupert, British Columbia. From April 1943 to April 1944, our small staff was faced with the same harsh weather conditions as those experienced by other travelers to Alaska. We were glad to find space on DC-3's loaded with mail, fruits and vegetables for G.I.'s in the Aleutian Islands, green wolf hides, smelly cabins, and airsick U.S. Engineer employees. During this period and the 1950's, we never had access to the 'Cloud 9' modern transportation which was enjoyed by staff during later years' operations.

When Seattle became a regional audit office in 1952, Ray Bandy became the regional manager. At that time the Seattle office covered Washington, Alaska, and northern

Idaho; Oregon and southern Idaho were under the Portland regional audit office, which was also established in 1952. Charles F. Wells was the Portland regional manager until it merged with Seattle in 1960. During those early years, we performed primarily financial, contract, and comprehensive audits. Other staff members, as experienced investigators, were assigned to work directly for congressional committees. It was also under Ray Bandy that SRO began to enhance its audit capability by hiring experienced auditors from CPA firms and accounting graduates directly from the universities.

With these building blocks in place, Ray moved to Washington, D.C., and Bill Conrardy became the regional manager. SRO had always prided itself on contributing ideas for future work and exploring different approaches, and Bill, with his interest in new management styles and emphasis on planning, provided a fresh stimulus. And our unusual types of work—from Government involvement in selling timber to producing nuclear materials at Richland, to name a few—gave us a variety of opportunities to plan and accomplish the needed work. Under Bill Conrardy, the Seattle region also became involved in heading lead region assignments, using project managers, establishing goals for both the regional and individual staff members, and assigning values and measuring productivity. Our productivity values, which Bill termed congressional service units (CSUs), became affectionately referred to around GAO as Seattle's “kazoos.”

Phil Bernstein became our regional manager in 1972. He continued the project manager practices and promoted the fly-through approach, and involved the office in his management philosophy: “more, better, faster.”

Phil transferred to Washington in 1976, and John Carroll became regional manager. His stay was fairly brief (1976-79), but he led the region through transitions from project manager operations back to audit manager, then to the teams and PPMA approaches. He also concentrated on building a cohesive management team after the transfer or retirement of all three assistant regional managers.

In 1979, Dick Henson "returned" as regional manager after a 14-year absence in other GAO positions. In the short time Dick has been in Seattle, he has worked on a number of special projects, including a regional management council and a grade level council to enhance participative management and promote greater regional involvement in issue area planning.

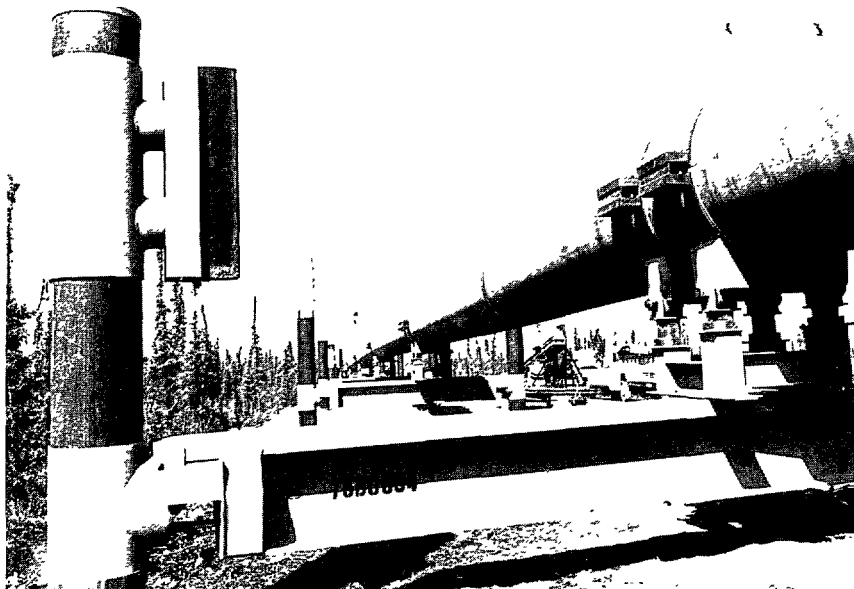
The Region Today

SRO now has 130 staff members, including 21 in Portland and 9 in Anchorage. The work is about as diverse as the staff's education and training. During the last fiscal year, energy and land-use planning and management were the only issue areas on which we spent more than 10 percent of our staff resources—yet neither amounted to more than 15 percent of our total work. Several other issue areas, such as health, education, procurement, law enforcement, environmental protection, and income security, included sizable expenditures of staff time. Some of our reviews were single-region assignments done by SRO staff, some were done by SRO staff in numerous locations using a fly-through approach, and some were parts of nationwide reviews involving staffs from other locations.

SRO has been particularly active in planning work dealing with energy, health, education, environmental protection, American Indians, Alaska natives, and more recently, measuring the effectiveness of programs geared to the elderly. Generally, we have one or more assignments underway in each of these areas at all times.

Our audits are varied and always interesting, such as

- reevaluation of the Bonneville Power Administration's power marketing programs;
- construction on the trans-Alaska oil pipeline;
- the effect of the 1976 Fishery Conservation Act, which extended U.S. jurisdiction of offshore fishing to 200 miles;
- problems in deep-ocean mining of manganese nodules;
- problems in forestry research and wilderness use;



The Trans-Alaska pipeline. (Photo courtesy Alyeska Pipeline Service Co.)

- decommission and management of closed nuclear facilities; and
- construction practices at Federal dams.

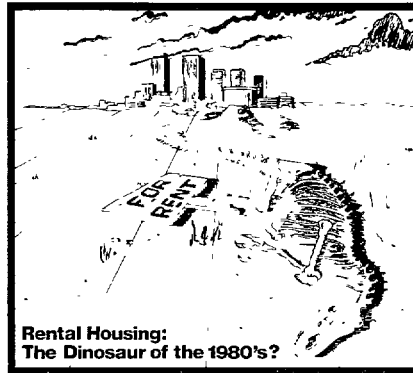
Unfortunately, we don't have room to tell you more about our region. The most difficult part of writing an article like this is deciding what should be left out, but we hope we have stimulated your interest in getting to know us, the Seattle regional office.



Ron Wood

Mr. Wood is the Community and Economic Development Division issue area coordinator for housing and community development. He joined GAO in 1965 after receiving a B.S. degree in accounting from Concord College, Athens, West Virginia. Mr. Wood is a CPA (District of Columbia) and a member of the American Institute of CPA's and the National Association of Accountants. Mr. Wood is a previous contributor to the *GAO Review*.

Rental Housing: The Dinosaur of the 1980's?



**Rental Housing:
The Dinosaur of the 1980's?**

Affordable rental housing should be added to the endangered species list. Existing housing units are being lost to condominium conversion and abandonment, and are not being replaced by private construction.¹

About 26 million families (35 percent of all families) depend on rental housing as a source of shelter. In 1960, about 38 percent of all families depended on rental housing, but by the year 2000, only about 26 percent of housing units will be available to renters.

Millions of American families, especially the low-income and the elderly, are faced with a dilemma—they cannot afford to buy a house and rental units are no longer available. Since 1955, when national records were first maintained, the nation's rental housing vacancy rate has dipped below 5 percent for the first time. In many large cities the vacancy rate is below 2 percent, although a 5 percent vacancy rate is considered desirable to provide for mobility.

Few Privately-Financed Units Being Built

New rental construction is down by 50 percent nationally since the early 1970's. In 1979, only about 250,000 privately-financed multi-

family rental units were built. Builders and economists almost invariably cite rent control (or the threat of it) as the main reason for the decrease in construction. But despite tenant complaints, rents have risen much less quickly than other consumer needs. Between 1967 and 1977, rents nationally increased by 53 percent, but the cost of homeownership, fuel, and medical care more than doubled, and the Consumer Price Index rose by 82 percent. One reason for the slow rise in rents is that 60 percent of the rental market is controlled by small landlords who prefer stability to increasing their income.

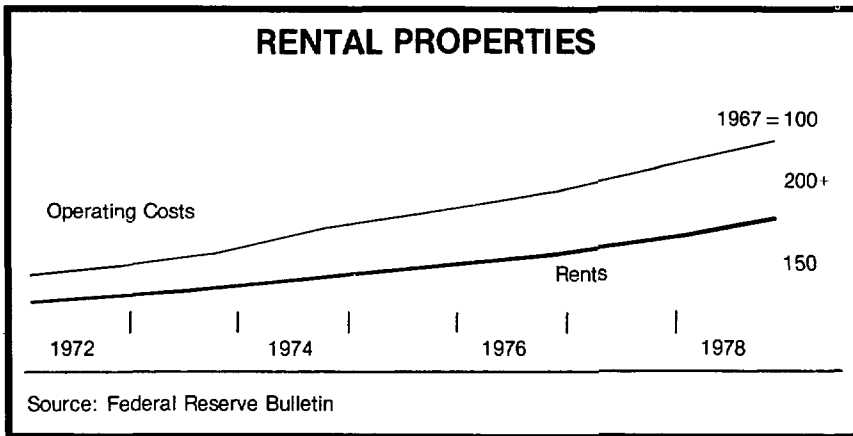
Few privately-financed rental units are being built because of the high costs of construction, land, and financing, and because of insufficient rents. New apartments must rent for \$750 and up to be profitable, but those who can afford to pay that rent are instead buying homes for tax advantages.

The average expense of operating rental projects has risen faster than rental expenses, as shown in the chart.

One factor that contributes to the high operating cost of rental projects is the age of the nation's rental housing stock. Older units typically cost more to operate and maintain, and in 1977, about 41 percent of all renters lived in units built before 1940.

Raising rents is not a practical way to reduce operating costs. Over 48 percent (11.9 million) of all renters are paying more than 25 percent of their incomes for rent and another 7.4 million renters paying 35 percent or more. This means that rents are too high for the remaining tenants and too low for builders to make rental property financially attractive, as rents need to increase by over 25 percent before many builders would return to rental construction.

However, Texas and Arizona continue to experience significant ac-



tivity in rental starts. The greatest relative activity in rental housing construction seems to occur where the following conditions exist:

- The communities are in the economic and population-expanding sun belt.
- Construction, wages, and fuel costs are lower than the national average.
- Garden apartments, rather than high-rise, predominate.
- Rentals are \$300-\$350 per month for two-bedroom units.

Rental Housing Units Needed

Predictions of future demand for new rental housing units vary widely. One recent study estimates the need for new unsubsidized rental units at over 500,000 a year for the next 8 years. This compares to about 250,000 new privately-financed units constructed in 1979. Offsetting the constructed units in 1979 is an estimated 120,000 units lost through abandonment and fire, and about 100,000 units converted to condominiums or cooperatives.

A key unanswered policy question is whether the long-term demand for rental housing will be enough to maintain the buildings once they are built. Presently, the demand for rentals is increased because the millions born during the "baby boom" are now in their twenties, the age when most young people rent until they can afford to buy. But by 1985, the effects of the so-called "baby bust" of the 1960's and 1970's will reduce the number of households headed by people

under 25 by as many as 122,000 a year until 1990.

Condominium Conversion

In 1980 an estimated 155,000 rental units will be converted to condominiums. Landlords have been more than willing to convert for two major reasons—rental properties aren't very profitable and converters are willing to pay fancy prices. Converters (developers) will pay landlords roughly 130 percent what a property is worth as a rental because of their potential for big profits as condominiums. Many converters get a net profit of 10 percent of the gross sell-out price.

A Landlord's Advantages in Selling To a Converter.

- He may receive a higher price from a converter than from another investor who would retain the property as a rental.
- He "gets out from under" an investment whose profit may have been eroded by increases in taxes and operating expenses.
- He escapes the risks of ownership such as tenant turnover, management headaches, and the possibility of rent control.

Note: Landlords rarely convert their own buildings because they are taxed on profits at a much greater rate than if they sell to condominium converters.

A Renter's Advantages in Buying A Condominium.

- He may deduct mortgage interest payments and real estate taxes from his gross income in computing income taxes.
- He builds equity in his condominium.
- He may realize substantial appreciation in the value of his condominium.
- He has a voice in how the building is operated.
- He is guaranteed a stable monthly housing payment.
- He often will be given a price discount by the developer.

A Renter's Disadvantages in Buying A Condominium.

- He must produce a large sum of cash for a downpayment.
- His monthly mortgage payment is likely to be higher than his former rent.
- A condominium owner must share any risks of mechanical and structural breakdowns, and share the cost of repairs.

A Look At the Future

When asked to describe the future housing market, most housing experts cite a market of smaller dwelling units with virtually no single-family detached homes for persons of average income. Units will be in massive projects and high-rise towers will be very common.

A September 1979 report by the Robert A. McNeil Corporation concluded that the nation is facing a housing shortage of major proportions which will alter dramatically the way we live. Some of the radical lifestyle changes were:

- Two and three families will live under one roof (both in homes and apartments).
- Many newlyweds won't go house-hunting; they'll just stay with mom and dad.
- A long-lost relative may suddenly turn up at the door, bags in hand, pleading for that spare bed of yours.

- Your 'unhappy, misunderstood kid won't run away from home as quickly as in the past because there won't be any place for him to go.
- Life's amenities—a den, a recreation room, the porch, that extra bathroom, a real woodburning fireplace, or a fancy patio—these will be taboo in most new homes because the purchase price would be astronomical.
- Home entertainment may be the only entertainment. Football games, the ballet, or weekend nightclubbing

may be precluded by large mortgage or rent payments.

Conclusions

Despite the American dream of owning a home, some people do not want to buy into the housing market even if they can afford to. An ever-increasing proportion of Americans are in transition: from one part of the country to another, from one career to another, from bachelorhood to marriage, from marriage to separation. Many people in flux can't be tied down to a mortgage and don't want homeown-

ership responsibilities. For them, the tight rental housing market has become a major annoyance, but for the poor it can be a matter of life and death. Many poor people are doubling up and living in shacks while others are living in automobiles.

No one has come up with a solution to the vanishing rental market. The housing industry and the Government have only begun to recognize the problem and investigate its possible consequences. While the experts look for solutions, many people are trying to stay in rental housing. The job gets tougher all the time.



Lee Edwards

Mr. Edwards, a management analyst in the Atlanta regional office, joined GAO in 1970. He received a B.S. degree in economics from Valdosta State College in 1970 and an M.B.A. from Alabama A&M University in 1977. Mr. Edwards has served as a team leader on several studies of the conduct of program evaluation and its role in public administration, and is participating in the development of GAO's program evaluation training. Mr. Edwards is a member of the American Society for Public Administration.



Keith E. Marvin

Mr. Marvin has been an associate director in the General Accounting Office for 12 years. He has served in that capacity in the Office of Policy and Special Studies, the financial and General Management Studies Division, and the Program Analysis Division. Mr. Marvin has a B.A. degree from Doane College, Crete, Nebraska, and a B.S. degree in electrical engineering from Iowa State University. Mr. Marvin is a member of the National Association of Accountants, the American Institute of Industrial Engineers, the Operations Research Society of America, and the Evaluation Research Society.

Selecting Evaluation Methods Realistically

This is the seventh in a series of articles on program evaluation.

Adapted and updated from one of the Guttentag Memorial Lectures at the Third Annual Meeting of the Evaluation Research Society, October 19, 1979.

In these days of disillusionment with the failure of Federal Government programs to solve the pressing problems of our society, and the seeming general failure of evaluation to tell decisionmakers what can be done about it, it is vitally important that evaluators select evaluation methods realistically. The Evaluation Research Society (ERS) has provided a forum in which evaluators from different backgrounds can come together to share their common concerns and interests without the constraints of disciplinary boundaries. Furthermore, the ERS has taken upon itself the task of developing evaluation standards to guide and improve the practice of evaluation. The first President of ERS, Marcia Guttentag, stated, "as evaluations continue to multiply, the need for basic evaluation standards becomes more urgent, ...standards must take account of generic concerns that cross fields as well as the specific evaluation requirements within fields." A first exposure draft of *Standards for Program Evaluation* was published by the ERS in May 1980. As this set of standards becomes generally accepted by the evaluation community, it will place even greater responsibility on evaluators to realistically select their evaluation methods in view of the purpose to be served.

The scope of the methods selection task is very broad, not only because of the great variety of programs needing to be evaluated, but also because of the different purposes which evaluation must serve. For example, the ERS has defined six categories of evaluations to which its standards are applicable: front-end analysis (pre-installation, context, feasibility analysis); availability assessment; formative evaluation (developmental, process);

impact evaluations (summative, outcome, effectiveness); program monitoring; and evaluation of evaluations (secondary evaluation, meta-evaluation, evaluation audit, and what may be referred to as utilization evaluation).

Evaluators have struggled to find links between their work and the decision and policy processes, and they admit some of their most widely respected and tested evaluation methods may not do the job. Essentially, it appears that these traditional evaluation methods do little or nothing which would not have happened in their absence. It is not surprising that program administrators and many policymakers have been unwilling to accept these evaluations as telling the whole story. Many evaluators, while defending the informational value of many of these evaluations, have attempted simultaneously to find additional methods which might be more sensitive in individual circumstances, and which might be more helpful to individual program managers in improving particular programs.

The Congressional Budget Act of 1974 requires GAO to take a leadership role in the field of Federal program evaluation. Among other things, that act requires GAO to evaluate programs carried on under existing law; to identify, develop, and recommend to the Congress methods for evaluating public programs; and upon the request of congressional committees, to assess evaluations prepared by or for executive agencies. We take these responsibilities seriously because we believe in the need for program evaluation and because we are optimistic about the potential for improving Government programs through evaluation.

Issues in Evaluation

The survival of evaluation as a meaningful force in public decisionmaking largely depends on the ability and willingness of the evaluation community to address a number of major issues, including

management, policy, and methodology. Management issues are concerned with the role, objectives, capabilities, and organization of evaluation in the Federal Government and the effectiveness of processes by which Federal agencies plan and manage their evaluation programs. The methodology issues are concerned with the effectiveness of methods used to carry out individual evaluation studies and generate evaluative information flows.

It seems ironic that just when the public has demanded that rational and systematic methods of program evaluation be brought to bear on public problems, the ability of evaluation activities to perform that role is increasingly called into question. As evaluation has attempted to address the larger and more basic issues facing society, it has been viewed more critically and its problems and limitations are magnified.

In the past, the strength of evaluation was most often its ability to systematically and objectively collect evidence on program results and effectiveness. Evaluators hoped that providing unbiased data on the consequences of programs would bring "rationality" to public decisionmaking processes. For that reason, evaluation methods were often based on the scientific experimental method. However, those who defined rationality in the traditional, scientific way became disillusioned rather quickly. The lack of immediate, direct, and visible changes in resource allocations and program structures was often cited as evidence of the failure of the evaluative research paradigm.

To a large extent, disillusionment was due to excessive initial expectations, and in some cases there were failures in performing evaluations. Certainly there is evidence suggesting that programs can and do survive an evaluation which show them to be dismal failures in accomplishing their stated goals. Other programs have been terminated or curtailed even though evaluative evidence confirmed their ability to accomplish specific, and presumably important, objectives.

Should the research paradigm, as a program evaluation method, be condemned because it sometimes

fails to affect decisionmaking? Before answering that question, it is necessary to define program evaluation. Based on studies of evaluation literature and of evaluation in executive and congressional processes, GAO defined program evaluation as assisting policy and management decisionmaking by appraising the manner and extent to which

- programs achieve their stated objectives;
- programs meet the performance perceptions and expectations of responsible public officials, interest groups, and/or the public;
- programs produce other significant effects of either a desirable or undesirable character; and
- program alternatives, including research results, offer options for meeting the objectives and expectations in the future.

Any judgment of the relative success or failure of evaluation would appear to hinge on the phrase: "assisting policy and management decisionmaking." What does "assisting" mean? Is it reasonable to expect that every evaluation will have an immediate, direct, and visible effect on the program being evaluated? Must evaluation always attempt to answer the final question: "How good is this program?" Must it always suggest or recommend a course of action? Is it success to be judged solely on the basis of whether decisionmakers follow that suggested course?

Those who hoped that evaluation would radically alter the nature of public decisionmaking were doomed to disappointment from the beginning. Any such hope ignored the necessary difference between a rational evaluation process and a rational political process. As Carol Weiss has pointed out, political considerations intrude in three major ways.¹ First, the policies and programs which are evaluated are the creatures of political decisions. They were proposed, defined, debated, enacted, and funded through political pressures, both supportive and hostile. Second, because evaluation is undertaken to feed into decisionmaking, its reports enter the political arena.

There they must compete for attention with factors which, although not often addressed in evaluation studies, nonetheless carry weight in the political process. Third, evaluation by its very nature has a political stance. It makes implicit statements about such issues as the problematic nature of some programs and the unchallengeability of others, that is, it threatens to affect that most political of questions: "Who gets what, how, when, and where?"

Potentially Useful Roles for Evaluation

Public policy debates typically focus on the consequences of a program and the value of those consequences compared to the cost. This suggests two basic and potentially useful roles for evaluation: two views of "assisting" policy and management decisionmaking.

The Information Role

In the first view, evaluation provides information on criteria consequences of an action. In many cases, the decisionmakers do not need or expect to be provided by evaluators with a total "valuation" of the program.

Evaluation can, for example, answer specific questions on consequences such as "How will a negative income tax affect recipients' willingness to work?" "Will a direct subsidy result in improving the quality of houses occupied by the poor?" "How will the subsidy affect the supply of housing or the level of rents?" "Will a summer youth employment program provide meaningful work experience, experience which is likely to enhance the program participants?" Clearly, answers to these questions are not the only factors likely to affect the decisions about whether to implement or continue those programs. However, such questions are considered by decisionmakers, and where there is not universal agreement about the answers (and there frequently is not), evaluations are "assisting" decisionmakers by providing this information.

In this "informational" role, evaluation is most closely linked with traditional research. While there are valid doubts that evaluation can

closely approximate the research paradigm in all circumstances, the evidence shows that, with due care, evaluation can provide meaningful and accurate answers to many questions asked by decisionmakers. Over time, evaluation can provide good, objective evidence about many of the consequences of public programs. The task of attaching values to those consequences, adding up the values, and deciding on a course of action may be left to the political process. The "informational" contribution of evaluation is important.

A Role in Decisionmaking Processes

An increasing number of people now view evaluation as an integral part of the decisionmaking process. According to this view, evaluation starts with a clearly recognized problem or decision point, identifies those factors which are expected to affect the decision, accumulates evidence about each factor, and structures or aggregates that evidence in such a way that it suggests a resolution of the problem or a preferred decision. In this view, evaluation is very closely related to "decision analysis."

Decision analytic methods, the multiattribute utility concept, for example, offer an exciting potential for linking decisions, consequences, and values in a meaningful and effective way. Further, they permit evaluators to address those program consequences—political and otherwise—with which the more traditional evaluation research paradigm does not deal.

But when the evaluation function enters this arena, it faces head-on the question of values. It is almost tautological to state that the answer to questions such as "How good is this program?" or "Which of these two alternatives is best?" depends on where you stand, both in theory and in your relationship to the program or alternative.

These questions are impossible to answer without making or implying judgments about values. Some people may judge a summer youth employment program as good even though it is not providing meaningful work experience, if it is keeping kids off the streets who might otherwise be in trouble. Others may

view it as good because of its income redistribution effect.

Dealing with People's Values

Value problems, and they are problems, arise from two sources—a multidimensional situation and the operation of multiple constituencies. While the basic difficulties are the same, our ability to resolve them depends to a large extent on which of these two sources is the cause.

Multiple Attributes

Multidimensionality means that programs have more than one objective, that each objective may be defined by multiple attributes, and that these objectives and attributes may at times conflict. For example, the objectives of U.S. energy policy are to enhance national security, and promote economic stability and growth. A number of different criteria or attributes would be needed to judge the extent to which any energy program achieves or contributes to these objectives.

For example, achievement of the national security objective is affected strongly by dependency on foreign energy sources. Achievement of the economic stability and growth objective may also be judged by changes in the Gross National Product, the inflation rate, the unemployment rate, or any number of other indicators.

Various alternative energy programs are likely to affect these indicators in different ways and, at least in the short run, the objectives may be in conflict in the sense that attempts to reduce dependency on foreign energy sources may necessarily introduce negative economic impacts. Any evaluation which attempts to judge the overall value of an energy program or select from alternative programs must come to grips with these tradeoffs.

Multiple Constituencies

Operation of multiple constituencies means that more than one person or group has a valid view of what the program is intended to achieve and what criteria should be used to judge the success or failure of the program. In these circumstances, evaluators must also face

questions such as "Whose criteria are to be used?" and "Whose values are to have priority?"

GAO does not have definitive answers to those questions, but we do believe that the criteria and values used in evaluation cannot be solely those of the evaluator. They must come from or be agreed to by responsible sources outside the evaluation, such as legislative or executive officials, or from individuals and groups affected by the program.

Multiple constituencies are likely to be strongest when the legislation authorizing a program leaves objectives vague and ambiguous. Program evaluation would be easier if policymakers could be explicit in defining program objectives and could provide statements about the relationships and priorities among objectives. GAO supports and encourages efforts to obtain more definitive statements of performance criteria and priorities from policymakers. In our report, "Finding Out How Programs Are Working: Suggestions For Congressional Oversight," (PAD-78-3, Nov. 22, 1977), we outlined an approach, developed with assistance of the Urban Institute, which we believe offers considerable potential for doing that.

At the same time, we recognize that program objectives are left vague for a number of reasons that are not going to change just because they cause evaluation problems. Goals are intentionally left vague if it is easier to obtain a consensus on action. Value judgments may not be shared by important groups and ambiguity permits the action necessary to establish the program. Yehezkel Dror has stated it in this way: "This tremendous political advantage of a highly abstract goal lies in its nonoperational character, which permits it to be perceived in as many different ways as are convenient for various purposes, and which saves the considerable costs (in terms of support, good will, possibilities for coalition, etc.) that explicitly rejecting such possible interpretations often lead to."²

These conflicting interpretations do not stop when the program is authorized. They will inevitably surface again when the program is evaluated. It is for this reason that

GAO's definition of program evaluation includes the phrase "meeting the performance perceptions and expectations of responsible public officials, interest groups, and/or the public."

Selecting or Developing the Needed Technology

Clearly we need a technology for explicating, comparing, reconciling, and ultimately aggregating the inconsistent values of groups in conflict. However, at present we are far short of that goal. In theory, of course, the election process provides such a technology, but it leaves a great deal to the judgment of those elected. In many cases it does not segregate issues; it does not provide clear evidence about society's priorities on values in many particular circumstances or for specific consequences.

Sometimes, multicriteria evaluation methods such as multiattribute utility may help. They can provide a mechanism for helping a decisionmaker make values explicit and for comparing alternatives on the basis of priorities or value structures. Differences, once identified, may then be fought out in the political system, we hope with reduced confusion among consequences and values attached to those consequences.

The ability to elicit the priorities depends on the willingness of decisionmakers and others to make their values explicit. It has been shown that the multiattribute technique offers the advantages of simplicity and understandability, characteristics which are highly valued in interactions with busy decisionmakers. However, even a simple, understandable mechanism may not be enough in some cases. For example, decisionmakers may be unwilling to make explicit tradeoffs between resource expenditures and human lives. Even though these tradeoffs are implicit in some public decisionmaking context, making them explicit can be politically unwise.

Cost-benefit analysis presents an alternative approach to the issue of multiple constituency value conflicts. Cost-benefit relies on market forces to make the tradeoffs. To the

extent that markets exist for attributes relevant in a given situation, cost-benefit represents a powerful evaluation tool. In many cases, however, such markets do not exist. Sometimes, analysts are able to infer values from "shadow" markets, for example, the value of a human life may be "inferred" from the average lifetime earning power of an adult or some other such statistics. Frequently, however, there is serious disagreement that such "shadow" markets adequately reflect the societal value for that attribute. Certainly, this is the case in the "human lives" example. In other cases, even imperfect "shadow" markets do not exist. For example, many important social programs have an objective of redistributing income. No market exists with which to price the value of this redistribution.

Evaluation has sometimes dealt with multiple constituencies by ignoring the conflicts. It may be that the evaluation sponsor will not tolerate an inquiry into the values of other interest groups. In such cases, the evaluator may be faced with ignoring the conflicts or not performing the evaluation. However, it is unsupportable for an evaluator to decide which group's values will be considered and which will not. It places the evaluator in the position of deciding priorities and that is not an appropriate role for evaluation.

No matter what view one takes of the role of program evaluation, the task is not an easy one. There are basic and formidable problems in either case and we will need to be expert in all of the approaches, methods, and techniques at our disposal if the enterprise is to survive and flourish.

Program evaluation is a dynamic and variable enterprise in which there is room for a number of different views of the role of evaluation; a need for methodologies which can be applied in a variety of circumstances and roles. Evidence suggests that no one methodology or role is inherently the appropriate one. Each has some unique characteristics which make it more or less useful in particular circumstances. Indeed, in any particular circumstance, a combination of methodologies may be most appropriate. In

this regard, it is interesting to note that experimental design can be incorporated into multiattribute utility methods. In other words, the two may complement rather than conflict.

It is for just this reason that we view our role, in part, as one of identifying where or under what circumstances each of these methodologies and roles has been successfully applied or has the most potential for success. Having done this, we will be in a position to address the question of what additional methodologies need to be developed.

Summary

In summary, different views on evaluation methods need to be considered. Particularly important is an understanding of the reasons for differing views. Those who view evaluation as informational input to decisionmakers and their task as one of identifying program effects and relating those effects to causes, are most likely to favor experimental and quasi-experimental methodologies. Those who view the evaluative role as one of providing continuous management assistance are more likely to use case study or other informal, less quantitative methods. Those who view their task as one of helping decisionmakers make decisions are more likely to use decision analysis methods.

But these role conflicts are often masked, because in attempting to defend one methodology, proponents attack the weaknesses of the others. While not always explicitly stated, the implication is that the methodology being defended is preferred in any evaluative situation. Each group appears to assume that its view of evaluation is universally accepted.

It seems desirable to accept each view as legitimate and to expect that they must coexist because, in many cases, the role of the evaluator is determined by decisionmakers and evaluation sponsors.

¹ Weiss, Carol H., "Where Politics and Evaluation Meet," *Evaluation*, Vol. 1, no. 3mm, pp. 37-45.

² Dror, Yehezkel, *Public Policymaking Reexamined*. (Scranton, Pa: Chandler Publishing Co., 1968), p. 135.

Opportunities To Achieve Savings Through Legislation

Elmer B. Staats

This article is adapted from testimony presented to the Congress by Mr. Staats on March 10, 1980. The testimony was largely prepared by William Anderson, GGD, and Shelia James, OP.



One of GAO's basic functions is to make recommendations to the Congress "looking to greater economy and efficiency in public expenditures." The Congress has been generally favorable to our legislative recommendations. GAO, of course, is only one of a number of sources of information and advice on Federal programs that the Congress considers in the legislative process.

Much of the good that results from GAO's work cannot be quantified. For example, there is no good way to measure the benefits of favorable congressional action on GAO recommendations which

- enable handicapped Federal job applicants to enjoy the same rights as other minori-

ties in challenging discrimination,

- increase condominium homeownership opportunities, or
- help prevent radioactive wastes from harming the public by promoting the cleanup of inactive uranium mills.

Similarly, Federal agencies take action on our recommendations which can improve the economy, efficiency, or effectiveness of their operations—but which do not show up on our "savings scorecard." For example, as a result of our work:

- The Department of Health, Education, and Welfare improved the controls over its payroll system.

- Action was taken to improve quality control procedures in the National Cancer Institute's chemical testing programs.
- The Department of the Treasury and the Federal Reserve Banks located and returned to their owners about 420,000 savings bonds, some of which had been held since World War II.

GAO's legislative recommendations are based on reviews of individual programs. Our reviews examine how economically and efficiently programs are operating and how consistent they are with congressional intent as expressed in the legislative record. We do not make recommendations to the Congress lightly. Such proposals are carefully reviewed within our organization to ensure that our positions are objectively presented and well supported.

Our Major Recommendations

The following 15 major legislative recommendations, and numerous others which have not been acted upon by the Congress, were suggested by our operating divisions as having "significance" on the basis of potential savings involved.

- Payment practices for compensation benefits to injured Federal employees need to be tightened (HRD-78-119, Sept. 26, 1978), (HRD-79-80, June 11, 1979).
- Actions are needed to improve pay-setting procedures for Federal white- and blue-collar employees (FPCD-78-60, July 21, 1978).
- The Davis-Bacon Act is no longer needed and impossible to administer fairly; its repeal would result in large construction cost savings (HRD-79-18, Apr. 27, 1979).
- Large savings opportunities are possible through competitive procurement of Medicaid supplies and laboratory services (HRD-78-60, July 6, 1978).
- Interagency sharing of Federal medical resources would reduce costs and improve effectiveness (HRD-78-54, June 14, 1978).
- Costly veterans' benefits are being granted to undeserving persons who fail to complete initial enlistments (FPCD-79-28, Feb. 16, 1979).
- Changes in the calculation of certain social security benefits would result in large savings (HRD-78-114, May 26, 1978), (HRD-78-160, Sept. 8, 1978).
- Consolidation and rationalization of Federal food assistance programs would reduce Federal expenditures (CED-78-113, May 12, 1978).
- Cost-of-living adjustments for Federal retirees are unnecessarily costly (FPCD-78-2, Nov. 17, 1977), (FPCD-78-60, July 27, 1976).
- Major wastewater treatment cost savings could be achieved if the Administrator of the Environmental Protection Agency was given certain discretionary authorities (CED-78-76, May 12, 1978).
- Improved management would avoid significant shortfalls in foreign military sales revenues (FGMSD-79-16, Mar. 22, 1979).
- Federal charges for uranium enrichment services are much too low (EMD-78-66, Apr. 19, 1978), (RED-76-30, Sept. 22, 1975), (EMD-77-73, Sept. 27, 1977).
- Tax refunds could be withheld to reduce Federal debt losses (FGMSD-79-19, Mar. 9, 1979).
- Statutory performance standards for the Medicaid Management Information System would significantly reduce program costs (HRD-78-151, Sept. 26, 1978).
- There is a need to create a self-sustaining national trust fund by assessing fees on the disposal of hazardous wastes (CED-79-14, Jan. 23, 1979).
- Discontinued Social Security postsecondary student benefits could net taxpayers substantial savings (HRD-79-108, Aug. 30, 1979).
- Priority and emphasis is needed on energy conservation and management in the Federal sector (EMD-80-11, Dec. 12, 1979).
- Reassessment of the military health care system would reduce the operating costs of military hospitals and make better use of the nation's health care facilities (HRD-79-107, Aug. 16, 1979).
- Improved management of GSA's multiple award schedule program would reduce Federal procurement costs (PSAD-79-71, May 2, 1979).
- Procurement reforms proposed by the Commission on Government Procurement are incomplete and require intensified effort (PSAD-79-80, May 31, 1979), (PSAD-77-124, July 27, 1977), (PSAD-78-118, Sept. 25, 1978).
- Inequities in Federal land payment programs are costly to the Government (PAD-79-64, Sept. 25, 1979).
- Stricter controls on Federal land acquisition practices would prevent unnecessary expenditures (CED-80-14, Dec. 14, 1979).

The Indexing Issue *

For a number of Federal programs, the Congress has established procedures to protect benefits from erosion by inflation. Indexing is such a procedure for preserving "real benefits" (as opposed to the dollar benefits that become less valuable during inflationary periods) of persons eligible for Federal programs.

The Senate Committee on Finance has a special interest in the use of indexing of Federal programs. This is a subject which should receive priority attention in the Congress. GAO prepared a report to the Congress on this subject, dated August 15, 1979, entitled "An Analysis of the Effects of Indexing for Inflation on Federal Programs."

This report describes how indexing affects Federal expenditures and the problems associated with

its use. The report examines 12 Federal programs whose expenditures escalate essentially in direct proportion to inflation either as a result of explicit indexing or some other mechanism that achieves the same result.

Over the last decade, the Congress has indexed about 50 percent of the expenditures in the Federal budget. The main argument for indexing is that it provides an automatic and rapid adjustment in benefits to compensate for the effects of inflation. However, there are problems associated with indexing. First, there is the problem of choosing an appropriate indexing formula. There is a widely held view that the Consumer Price Index (CPI) is a better indicator of price movements than a measure of changes in the cost of living. Having selected an index, there still remains the problem of relating changes in the index to changes in benefits.

Second, indexing makes it more difficult to control the growth of the Federal budget. To illustrate, when the rate of inflation is 10 percent, expenditures for indexed Federal programs increase automatically by \$15 to \$25 billion annually. Each additional percentage point of inflation adds another \$1.5 billion to \$2.5 billion in expenditures for these programs. Such large automatic increases in the indexed programs reduce the opportunities for making reductions in the Federal budget. Because a uniform reduction in Federal expenditures is not possible with current indexing procedures, a disproportionate share of any reduction which does occur must fall on those programs which are not indexed, and some benefits which are indexed may have lower priority than those which are not.

Given the large and growing share of the budget accounted for by indexed programs, it will be difficult to reduce substantially the growth in total Federal spending without some check on programs which are indexed. Limitations on the portion of Federal payments which are indexed is one possible anti-inflation measure.

One early step in analyzing expenditure cuts should certainly be a critical examination of the indexed programs themselves to identify needed changes. For example, one

of GAO's open recommendations is that the cost-of-living adjustment provisions for Federal retirees should be revised to include annual adjustments rather than the semi-annual adjustments now provided by law. Another recommends repeal of the provisions that allow new Federal retirees to receive higher starting annuities and initial adjustments based on increases in the cost of living that occurred before they retired. This latter provision, in conjunction with the extremely high rate of inflation, is undoubtedly a contributing factor to the recent near mass exodus of valued rank and file and senior employees across Government.

Controllability of Federal Spending

This issue of controllability involves the tradeoff between the real need for a longer-term, stable commitment by the Federal Government to people who participate in Federal programs and activities, versus the real need for the Congress to "control" the budget in the short term and the long term. There is no magic formula for making this tradeoff. It requires constant long-range planning; monitoring of socioeconomic trends; oversight; monitoring and evaluating Federal programs and activities; and other "good administrative controls" to support the analysis and decision-making on budget priorities for both the short and long terms. Furthermore, the tradeoffs have to be made on a program-by-program basis dealing with specific groups of people, specific sectors of the economy, and specific problems.

Individual program decisions can be made in the context of a budget policy of encouraging multiple year (but not permanent) commitments. General revenue sharing is a good illustration of this approach. And, of course, the policies and procedures in the proposed oversight reform legislation would encourage both longer-range thinking and actions, as well as discourage permanent commitments.

Presently, both the executive branch and the Congress use a concept of "controllability" that requires all spending to be categorized as either controllable or uncon-

trollable. Both tend to use an idea of "uncontrollable" that focuses on outlays only, the budget year only, and current law only. There are, however, some differences in the way the Congress and executive branch classify individual programs. While the present concept is useful for distinguishing between spending levels that can be changed through appropriations actions alone from those that require changes in authorizing legislation, it seems to be too narrow a concept of controllability. We believe the Congress should take a broader and longer-term approach, as there are varying degrees of control depending upon the nature of the basic commitment of the Government.

Reconciliation Process

GAO views the practicality of the reconciliation process, provided for in section 310(c) of the Congressional Budget and Impoundment Control Act of 1974, as a means of effectively realizing legislative savings. The act requires reconciliation in the second concurrent resolution. GAO believes that, without advance preparation, the second resolution is too late in the budget process to achieve successful reconciliation. A way to bring about advance preparation would be through a proposal that sets "targets" for legislative savings in the first concurrent resolution. These could then be substantially covered by a requirement in the second concurrent resolution for reconciliation on these items. Rather than reconciliation in the first concurrent resolution, the proposed action would be to set "targets" for legislative savings. Section 301(a)(4) of the act already has a similar requirement concerning revenues. A similar provision regarding expenditures could be beneficial.

Multiyear Approach

One other matter which should be considered when discussing legislative savings is the need for multiyear planning and budgeting, recognizing that legislative savings often take time. Planning through target setting, followed by reconciliation within a single year's time-

span, can only achieve limited savings because of the proportion of the Federal budget that is uncontrollable in the short term. Achieving savings in such programs may require several years. These savings—as well as costs of new programs which can be expected to

start small and grow in later years—need to be considered over a longer period of time. GAO believes that increased emphasis on multiyear planning and budgeting is desirable and will be necessary to achieve significant legislative savings.

Legislation is surely the most ef-

fective way to achieve savings in Government operations. GAO's reviews of Federal programs often uncover areas in which savings can be realized, and our legislative recommendations to the Congress reflect GAO's concern for an efficient and less costly Government.



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The Near-Term Potential of Manufacturing in Space

Technological innovation—the process of converting scientific knowledge into new products, processes, and services—is a major source of productivity growth in any industrialized nation. The National Aeronautics and Space Administration (NASA), as well as other Federal agencies, develop new scientific knowledge with potential for commercial application by private enterprise.

This article, which is based on the report entitled "U.S. Must Spend More To Maintain Lead in Space Technology," (FGMSD-80-32, Jan. 31, 1980), demonstrates the continuing efforts by the National Productivity Group in assisting congressional decisionmakers in the area of private sector productivity.

The world today stands at the threshold of a new frontier in space. Until now the U.S. has been the undisputed world leader in space accomplishments, shared in part only by the Soviet Union. There have been spectacular engineering feats on the scale of Apollo lunar landings and outstanding planetary scientific and exploratory research missions to Venus, Mars, and Jupiter. New uses of space for the benefit of mankind, such as remote sensing systems, weather satellites, and communications satellites, have been and are being developed.

Accomplishment of these feats has brought economic benefits, both directly and indirectly. While direct benefits (i.e., privately operated communications satellites) are significant, the majority of economic gains have been realized through indirect benefits such as solid state technology, originally developed for use in space.

This is an important point to consider in judging the future potential of space programs. Programs of the past were not directed toward economic gains, but programs of the future will be. This difference in goal orientation should produce greater benefits than any realized in the past.

With the advent of the Space Shuttle and ease of transportation, new vistas will open. Not the least of these will be the prospects of manufacturing in space.

Space Manufacturing

Space manufacturing is the processing of materials in space to take advantage of the unique characteristics of space. For space manufacturing to become a reality, much research and development is needed to identify a wide range of opportunities which are

- unique to space,
- technically feasible,
- economically viable, and
- attractive to investors.

The concept implies that manufacturing in space would be done by private enterprise for profit.

Materials Processing in Space (MPS)

MPS got its very rudimentary beginnings from investigations conducted during the Apollo, Skylab, and Apollo-Soyuz flights. Unfortunately, experiments with materials in low gravity were not the primary mission of these early flights, and many experiments were criticized as being hurriedly put together, badly planned, and lacking solid preliminary ground-based research. Nevertheless, a few experiments were properly designed and the results indicated promising possibilities.

The excitement generated by these successful experiments prompted NASA in the early 1970's to begin stressing the commercial applications of manufacturing in space, encouraging private industry's involvement in developing new programs. Perhaps one reason for

NASA's approach was its desire to pursue this new area, coupled with its perception that budget approval was linked to the economic benefits promised.

Whatever its reasons, NASA was quickly and aptly criticized by industry and the scientific community for overstating the commercial implications of materials processing in space on these few early experiments. According to these critics, only questions have been uncovered—not answers.

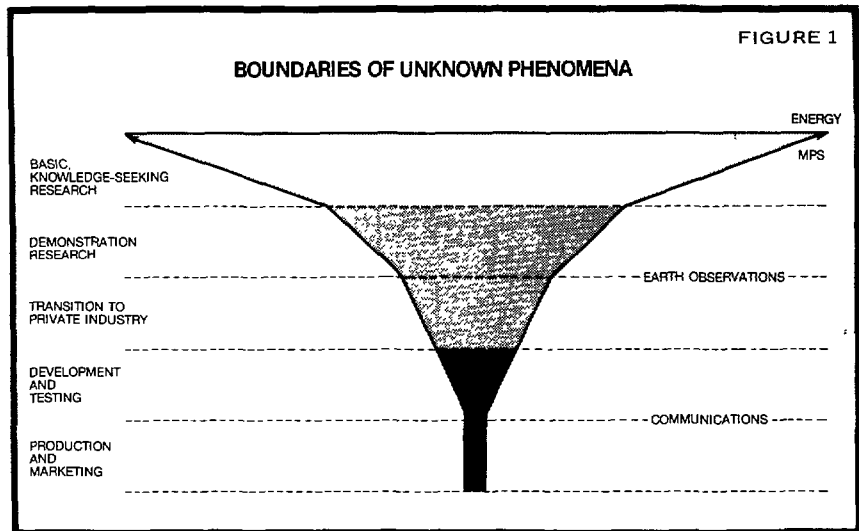
NASA's MPS Approach

Now NASA is stressing the need to establish a firm scientific basis to better identify the benefits expected from materials processing. It recognized that industry's participation is absolutely essential to the program's success, and that industry's contribution in the early stages must be in guiding NASA toward the types of research needed to be done. Only after a solid scientific basis has been established can commercial applications be adequately supported, and this is the point at which private industry will begin to consider actively investing in space-related ventures.

The approach recommended by the National Research Council (NRC) and adopted by NASA is to place heavy emphasis on basic, knowledge-seeking research and less emphasis on specific commercial products. This approach has been applauded by both industry and the scientific community.

The reason for this approach becomes clearer by looking at basic research in relation to the total innovation process (see Figure 1). The area within the funnel represents the boundaries of unknown phenomena as we move down the innovation process. The top represents the almost limitless boundaries of unknown phenomena at the outset of basic research. As new knowledge is gained, many ideas fall by the wayside, while others begin to crystallize into practical uses. As these ideas are developed, the gap of unknown phenomena is further reduced. This narrowing of the gap continues until a refined product or process is ready for the marketplace.

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As can be seen in the right hand portion of Figure 1, the gap of unknown phenomena in materials processing today is very wide. This is why NRC, industry, the scientific community, and NASA are emphasizing basic research in MPS, rather than specific products. By contrast, the gap for earth observations is much narrower, and communications has already achieved market status.

Several corollary observations can be made from this model. First, the length of time on earth, from basic research to final marketing, varies considerably, but on the average, it takes about 5 to 8 years. Because of the uniqueness of materials processing in space compared to earth-bound programs, we should expect more than 5 to 8 years to market new products from space. If we don't allow sufficient time, high near-term expectations are almost certain to be disappointing.

Second, in allocating resources, the narrower the knowledge gap, i.e., the nearer a program is to fruition, the higher the likelihood it will be funded. This generalization applies to Government and private enterprise. It supports the contention that budget approval is linked to measurable results, and in MPS we cannot measure results—we don't know what the results will be.

Finally, the number of scientists involved at the basic research end of the spectrum is relatively small, compared to those at other stages in the innovation process. Materials scientists involved in basic research

in MPS are no exception, again suggesting that narrowing this portion of the gap of unknown phenomena will be a slow process, because relatively few scientists are involved.

Why MPS Is Different

The key ingredient to materials processing in space is the lack of gravity. Space is the only place where the existence of near zero gravity is constant. Materials scientists, both in the U.S. and in other countries, are very excited about the prospects of using the Spacelab as a primary vehicle for further MPS research.

On earth we have learned that certain forces such as buoyancy, sedimentation, convection, surface tension, and diffusion seriously affect the way materials behave. These forces have always been considered "natural" phenomena on earth, and, for the most part, we don't try to control them. Instead, we engineer around them. For example, to achieve a prescribed level of strength, we've learned how thick, or how wide, or how deep, or how heavy a material must be to meet a prescribed standard. Thus, the material standard itself recognizes that, empirically, flaws are expected to be present in the finished product. However, many imperfections in materials on earth are caused by gravity. In space, away from the confines of gravity, many of these material flaws may disappear.

This is why the materials scientists are excited about materials processing in space. This is not to suggest that scientists have been unaware of the role of gravity in materials processing. It does suggest, however, that some of the basic laws of materials science followed throughout history could be subject to radical change.

Some of the phenomena observed so far include:

- Vapor growth of single crystals to a size and degree of perfection never achieved on earth. This could expand the capabilities and markets for the electronics and communications industries.
- Homogeneity of materials melted and solidified to a degree not possible on earth. This adds tremendous consistency, strength, and perfection to such materials as metals, alloys, and glasses.
- Separation of live cells with improved resolution and purity. This could add a new dimension in the medical field for combatting disease.

And there are several others, all of which at least imply ultimate benefits, such as:

- Mixing materials with large density differences and maintaining the mix in suspension until solidification occurs. This has the potential of opening up new uses and new markets in the field of composite materials.
- Melting and solidifying materials without contacting the walls of a container. This avoids contamination and nucleation effects which is a constant problem on earth in processing high-purity materials, such as vaccines.
- Castings using only a thin oxide skin as the mold. The cost savings over current earth-bound methods of making molds could be substantial.

With these kinds of observations, some having obvious commercial potential, NASA's initial invitation for industry to jump in was understandable.

Foreign Activities in Space

There is concern in this country about the growing emphasis and commitments by other countries in materials science in space. This concern is not that other countries are ahead of us now, but that once the Space Shuttle and Spacelab are in operation, emphasis by other countries could lead to technological and economic advantages which may be difficult to overcome. Many industrialists and economists believe that being "first to market" with new products or processes is extremely important in gaining a large enough market share to remain competitive.

These concerns, though somewhat overreactive, are not without justification. The United States, through NASA, encouraged and assisted the European Space Agency (and its predecessor, the European Space Research Organization) by providing guidance and offering launch and space flight opportunities, at reduced cost for cooperative endeavors and at full reimbursement for strictly European missions. The Europeans, of course, are grateful for this and would like more of these opportunities in the future.

However, some Europeans, recognizing that U.S. capabilities in space are more advanced than their own and, therefore, as viewed by NASA, cannot logically be shared on an equal basis, resent their role as "minor partner."

European nations' desire to overcome this minor partner image, their uncertainties as to whether the United States will continue to provide access to American systems and services, and their drive to achieve technological parity in some areas of space activities have all provided impetus to develop capabilities to perform, independently, a wide range of activities in space. Following are examples:

- Of the early Spacelab flights to carry materials science experiments, most of these experiments will be conducted by Europeans.
- Beyond the materials science experiments currently scheduled for flight, West Ger-

many has already committed resources to perform a comprehensive set of materials science experiments—something the United States has not done.

- Fearing that U.S. sounding rockets would not be available to Europeans, West Germany developed its own sophisticated and highly successful sounding rocket system for use in low gravity materials research. Its assessment was correct—the U.S. program is being terminated for budgetary reasons.
- West Germany purchased an entire Shuttle/Spacelab flight to assure continuity of its low gravity materials science and other space-related research.
- The Ariane, a heavy satellite launching system, was developed by the French to assure an independent launch capability in Europe. This system is now competing with the United States to provide future satellite launching services.
- The French also plan to build their own unmanned, fully automated spacelab for further independence in future materials science space research at what they hope will be greatly reduced costs compared to research on the Shuttle/Spacelab.

The capabilities demonstrated aboard the U.S.S.R.'s Salyut 6, Soviet efforts toward a reusable shuttle, and the large number of top scientists committed to materials science research leave no doubt that major technological achievements can be anticipated by Communist bloc countries.

Japan has more recently planned to devote substantial resources to its space development policy—roughly \$1 billion a year for the next 15 years. This policy commits resources to materials science research in space.

Who Will Fund the Research?

If the prognosis of the scientific

community is correct; if the enthusiasm of those scientists involved in MPS is to be heard; and if future research and development results replicate past successes, the prospects of materials processing research in space appear to be promising. Nevertheless, an important question from the viewpoint of the Congress is whether the prospects are worth the risks involved. If they are worth the risks, the next important question is, who should take these risks—Government or private industry or both?

The consensus among scientists, industrialists, economists, and government officials was that most basic research and a large part of developmental and demonstration research would have to be funded by the Federal Government.

Private industry is not likely to fund MPS for several reasons. First, for at least the last decade or more, private industry research has been directed toward development of proven concepts, and away from knowledge-seeking, basic research. The most often heard comments today are that private industry will not invest until it can identify returns, and then only if those returns can be predicted to begin within 3 to 5 years. Certainly MPS today cannot offer this. And any change of priorities on the part of private industry, in today's economic environment, seems remote.

Second, venture capitalists, those who would supply investment money, apply almost identical criteria to the ventures they are willing to support. In space, for example, they would be far more apt to support maturing ventures like communications than they would high-risk ventures like space manufacturing.

Third, even the Federal Government has taken a far more conservative approach in research and development than it did 10 years ago. For example, of NASA's \$4.3 billion budget for fiscal year 1979, all of which is categorized as research and development, only a small fraction will actually go to basic research. More will go for developmental research, but the preponderance will involve engineering of a more developed technology, such as that for the Space Shuttle. From industry's viewpoint, if the Federal

Government is not willing to invest in basic research, why should industry?

Fourth, even those firms now interested in exploiting space may face some fairly serious legal barriers or disincentives that cause them to be very skeptical about participating in the program.

As a corollary, can we match the perceived emphasis and commitment to space research by other countries, some of whose governments play a key role in financing commercially-oriented research, and who appear to Americans to have a quicker and more efficient process for getting new technology into the marketplace?

The combination of all these factors affecting private industry in America suggest that if significant economic potential does exist from materials processing, and the burden is left to private enterprise to bear alone, the probability of U.S. industry being among the first to benefit appears to be very low.

Commercialization – The Need for Industry Involvement

To achieve rapid commercialization, NASA needs help from private industry. It needs help to give direction to the program in terms of the types of experiments needed to resolve earth-bound materials problems. It needs help to identify areas offering market potential. And it needs help to increase the size of the overall effort, unless the Government is willing to invest more money.

Getting industry involved will not be an easy task. Most American companies haven't even heard about the MPS program, and certainly haven't considered getting into it. There is widespread skepticism that NASA's motives are self-serving and self-perpetuating:

- There is uncertainty on the part of industry about perceived Government interference and regulation.
- Because of the high cost and long payback period for MPS, it may be necessary for two or more companies to combine their money and talents in order to pursue

space-related innovations. U.S. antitrust laws mitigate against American companies going together, while some countries encourage such participation.

- When the Government funds any part of research and development by private companies, the Government typically retains patent rights. And while it may grant exclusive licenses to those companies, there are strings attached. For example, the Government retains the privilege of royalty-free purchases; it has march-in rights in certain cases; and it will control the use of technologies which could have national security implications. These conditions are particularly poignant to industry.
- When the Government acts an agent/partner in research and development, the private company, under present laws, cannot retain proprietary rights to technical data developed. Yet this is the essence of why the company invests in research and development in the first place.
- NASA wants to work out ways for industry participation in which companies can lease NASA-owned equipment and pay their incremental share of transportation costs. This would avoid the patent and proprietary rights question, but it places NASA in a position of favoring one company over another in allocating flight space. The legal ramifications of this could be far-reaching. For example, if such a company should develop a unique product or process, NASA could be thought of as helping to create a monopoly.
- There is the problem of indemnification in event of an accident or catastrophe. Who should be responsible? The Government? The company?

In viewing the climate of innovation in the U.S. and Government's effect on industry, one overriding

conclusion is apparent—the policies and philosophy guiding anti-trust, regulatory practices, and patent and proprietary rights much be rethought in light of prevailing new worldwide economic forces and the less dominant role the U.S. plays on the international stage.

A new scale of values must be placed on achieving significant technological breakthroughs by joint efforts. Whether joint efforts mean joint Government/Government efforts, joint Government/industry efforts, joint company/company efforts, or joint Government/industry/academic efforts, Government's policies and philosophy need to encourage and support innovation, rather than deter it.

Success of the Program

Space manufacturing, with permanent manufacturing facilities in orbit and large-scale production operations, is not a near-term concept. Rather, it is a long-term prospect, with a number of milestones to be achieved along the way. The first milestone requires the completion of a wide range of materials processing research experiments, which is the essence of NASA's materials processing program today.

Getting from where we are today in materials processing research to a full-fledged space manufacturing activity tomorrow, particularly if there is to be appreciable success before the year 2000, depends on a wide array of variables:

- Whether American industry will provide needed guidance in identifying the research that ought to be done.
- Whether NASA is effective in planning and managing the program, and in disseminating new knowledge promptly and widely.
- Whether more top scientists than are currently involved can be encouraged to participate in the program.
- Whether new knowledge gained will, in fact, identify a wide range of practical and profitable applications, and not just a few unique products.

- Whether American nonaero-space-industry will be willing to take relatively long-term risks.
- Whether existing legal barriers and disincentives to industry's participation can be overcome.
- Whether the Federal Government is willing to commit and risk enough resources to complete essential basic research, fund a large share of developmental and demonstration research, and develop the follow-on facilities and transport services needed by the evolving private enterprise interest.

almost total risk. Regardless of the level of success, the U.S. would maintain its role of leadership in space technology. This alternative would bring it most quickly to a point of acceptance or rejection by private enterprise. If the scientists are correct in their assessment of economic potential, this is the alternative the nation should follow.

If there is no Government program, American industry is eventually likely to become involved in space manufacturing, but beneficial applications would have to be identified first. This would probably be done by other countries other than the U.S. This approach is advantageous to the American taxpayers now, but the U.S. could lose its leadership role in space manufacturing technology and the advantage of being first in the marketplace with new products. Following this alternative, in effect, suggests that we have little confidence in the scientific assessments.

The third alternative, which comes closest to the present course, is a compromise between the other two. The U.S. would slowly gain new scientific knowledge and eventually achieve commercialization, but it would not necessarily be the leader in developing new applications, nor the first in the marketplace with new products. In addition, success of this alternative would still depend largely on private sector involvement and resources to complete necessary research and development.

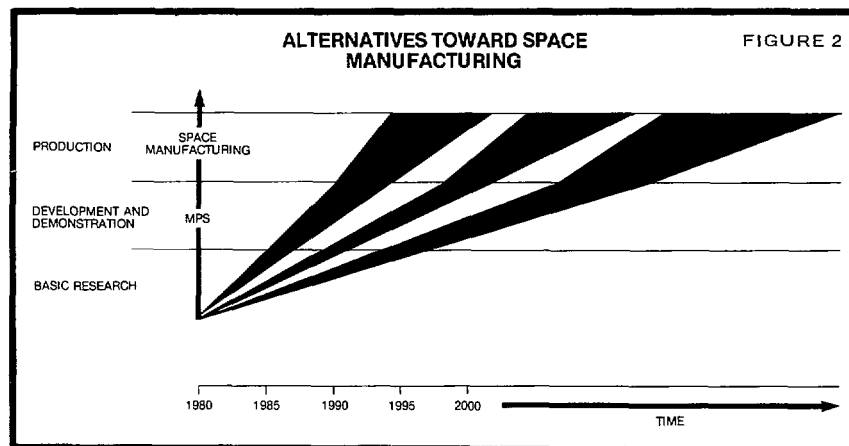
While the United States still appears to be preeminent in space, there is little doubt that its lead has diminished. While we observed no

Other Alternatives

From a national perspective, it seems the U.S. is at a critical decision point in the future of MPS (see Figure 2):

- It can make a national commitment to MPS and support it with as much Government funding as is required, the funnel on the left on this chart;
- It can have no Government program for MPS, and leave it to private sector ingenuity to develop space manufacturing eventually, the funnel on the right;
- It can follow a path between these two alternatives.

If it makes a national commitment, the Government must expect to fund most of the basic research, as well as many commercial demonstrations, and it must assume



immediate threat to our technological lead in materials science, it is the level of commitment being made by other countries, compared to the conservative American approach, that in time portends the loss of our technological advantage and "first-to-market" lead time for economic advantage—not unlike, or perhaps a continuation of, the phenomenal industrial and economic growth of Japan, West Germany, and other European nations after World War II.

Whether the United States is to maintain its world leadership role in materials science as well as other areas of space development depends largely upon events of the next 15 to 20 years. The opportunity to be the world leader in space is still available if we choose to exercise this option.

If our goal is to maintain world leadership in space, then we must be prepared to bear the high cost of developing a growing number of evolving areas. Moreover, we should be sensitive to the fact that such a policy could connote a dependency role for the Europeans. Care should be taken to assure our foreign partners that a U.S. policy of preeminence is one from which all nations can benefit.

On the other hand, future space development will require new generations of facilities, equipment, systems, services, and even new concepts. The cost of developing these could be beyond the means of any single nation. Therefore, the efficacy of laying the groundwork now for future cooperative international endeavors should be considered, particularly whether such endeavors should be undertaken on an equal versus a dependency basis.

The intent of considering all the above areas is to enhance the confidence and participation of the private sector of the United States and to lay the groundwork for international cooperation. These, in turn, should lead to the early and orderly development of the space environment for economic purposes. Failure of such creative and extraordinary measures on the part of the Government could lead to the loss of U.S. preeminence in space, both technologically and economically.

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As you have seen, there are many obstacles, and whether the early part of the program is supported and funded by the Federal Government or by private industry, there can be no guarantee of success. Clearly, one of the major benefits expected from this program, in the near term, is the ability of scientists to isolate and study complex phenomena which at the very least, should improve earth-bound products and processes.

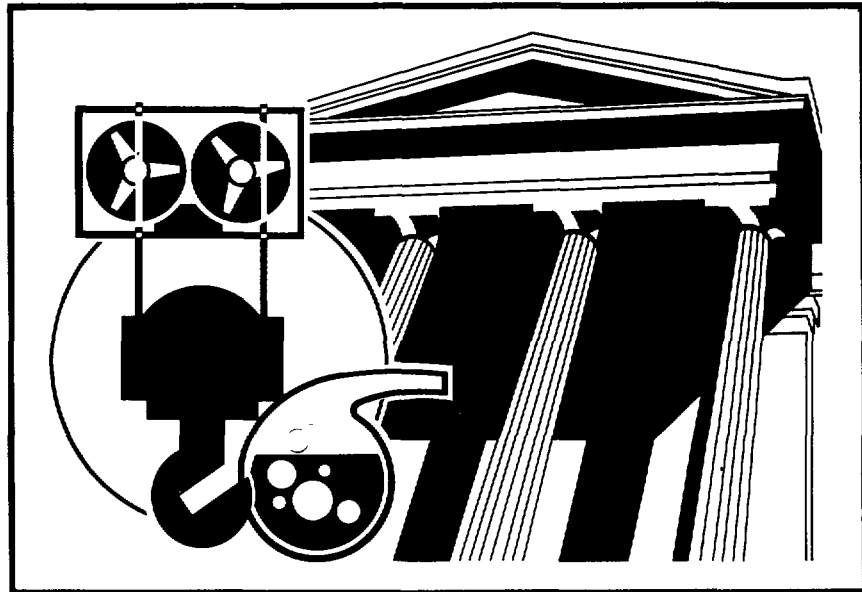
We must exercise patience and resist high, short-term expectations. The Congress, the Administration, and the private sector must recognize, understand, and be willing to accept the very nature of basic, knowledge-seeking research. While a few early commercial applications are likely to be discovered, this does not alter the fact that we are still in an embryonic stage of space manufacturing and full maturity is still many years away.



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Can We Expect Productivity Improvement in the Federal Government?



This article is based on a speech Dr. Usilaner gave at the "Conference on Productivity Research," sponsored by the American Productivity Center, in Houston, April 24, 1980.

Historically, Federal executives—political and career alike—have accorded low status to efforts directed toward improving Government productivity. As a result, Federal efforts have been weak in motivation, purpose, and achievement. Yet productivity improvement in the Federal Government is vital to the nation's economic strength. That the Federal budget is roughly equivalent to one quarter of the Gross National Product underscores this fact.

Why then does Federal productivity improvement lie in such low grace? One reason may be that few incentives, but many disincentives or barriers exist which inhibit Federal managers from targeting goals and resources on productivity-enhancing programs. Without incentives and rewards, whether material or perceived, productivity efforts have little hope of gaining

universal, Government-wide support.

A brief, demographic review of the Federal Government may help us to better understand the nature of the beast known as the Federal bureaucracy, as well as some of the unique problems Federal executives face.

The Federal Bureaucracy

Today, the total Federal civilian work force comprises 2.8 million people and costs an estimated \$54 billion annually. These employees serve in over 50 major departments and agencies, engage in administering over 1500 major programs, are classified in 65 major occupational categories, and are dispersed throughout the world.

The organization constructed to carry out these activities is the largest in the free world. But, not only is the Federal Government expansive, it is pervasive as well. Government rules, regulations, and standards either directly or indirect-

ly affect all of us and, for the most part, reflect our demands for services and/or protection.

Because Government activities are subject to broad public scrutiny and media coverage, the Federal Government operates, by necessity, in a complex political environment. Similarly, because the Federal Government must be responsive to multiple interests, Government decisionmaking acts as a bargaining process. In making decisions, a Federal manager must try to avoid alienating the Chief Executive, the Congress, various constituency groups, the public at large, and finally the agency's own staff—all of whose interests may conflict. Such a task is far from simple.

Finally, power and authority are organizationally fragmented within the three branches of the Federal Government. Although this fragmented arrangement has prevented the exercise of arbitrary power by any one branch, it has done little to enhance Government efficiency.

All of these considerations point to rather special constraints facing the Federal manager in directing an organization. Barriers to improving Federal productivity have evolved from these constraints.

Two categories of barriers stand out. They are unique to, but ubiquitous for, Federal managers. The first category is structural, and evolves from the formal organization of the Federal Government. The second category is environmental and these barriers result more from the informal or indirect influences within an agency.

Structural Barriers to Productivity Improvement

One of the most significant structural barriers to Federal productivity improvement is the budget process. Although the budget should afford a mechanism for encouraging productivity programs, it not only discourages such efforts, but often penalizes agencies for experimenting with productivity programs. An agency's reward for demonstrating improved productivity, for example, may be an across-the-board reduction in its next year's budget and staff. Obviously, the intent on the part of the Congress and the Office

of Management and Budget (OMB) is to force the agency to continue improving its productivity. With such a disincentive, however, it is not surprising that managers are hesitant to institute productivity programs. Further, managers learn to play the "budget game." Where managers know that OMB or the Congress will arbitrarily cut a percentage of their budget requests, managers simply build in fat.

Other aspects of the budget process also conflict with productivity-enhancing efforts. For example, the line item approach fails to consider the interrelationship of agency programs, while it restricts a manager's ability to redeploy agency resources according to need. As another example, single-year funding forces the return of unexpended funds to the Treasury and thereby encourages managers to spend all available funds, regardless of workload. Because the Congress often delays approving final agency budgets, managers may not know what funds are available until well within the fiscal year. Finally, the Federal budget is essentially a program and staff budget, and as such makes no allowances for capital acquisition. Any capital investment costs must be carried out of lean program or staff funds.

By failing to justify budget requests based on documented workload analysis, or to defend staff increases based on work measurement standards, agencies must also share responsibility for problems in the budget process. All too often, agencies accept their productivity as satisfactory and request additional staff based on existing staff's production. Whether the average employee produced at a reasonable level of efficiency is generally not addressed.

The Federal Government's personnel system with its myriad regulations is another major structural barrier impeding productivity improvement. Regulations which delay or prevent hiring the most qualified personnel and discharging nonproductive personnel, together with rigid job classification standards and rigid reduction-in-force procedures, hinder productivity. Although Federal managers have the authority to dispense program funds to the tune of millions, their

hands are tied in decisions on job changes, promotions, and related personnel actions. For example, filling position vacancies can take as long as 3 months for low level, 6 months for intermediate level, and 1 year for top level managers. By the time an administrator has a team in place, the administrator may be on the way out.

The Federal personnel system also constrains the relationship between performance and reward. Rewards such as pay increases, incentive awards, promotions and development opportunities tend to result more from longevity than productivity. In the system of virtually automatic pay increases, the basic performance-reward relationship has died. While increases are not automatic according to regulations, in practice, they are granted in over 98 percent of the cases, and thus foster mediocre performance. Supervisors who exercise their authority by withholding increases as a penalty for poor performance face involved grievance procedures and union activity, and frequently lack the support of higher management.

The recently enacted Civil Service Reform Act may correct many of the problems and barriers associated with personnel management. The act lays the groundwork, establishes a framework and provides an incentive for productivity improvement. But the act will only make a difference to the extent that Federal managers take advantage of new opportunities and flexibilities created by the legislation.

Another barrier preventing effective and efficient management is the use of arbitrary resource controls. These controls, which relate to both the budget and personnel systems, include personnel ceilings, hiring freezes, grade deescalations, and overtime and travel limitations. These are caused by the high visibility of the Federal work force and the continuing pressure from politicians and the public to freeze or cut the number of Federal employees. What these controls do, in effect, is limit the flexibility of Government managers by precluding their ability to decide how best to meet program objectives under a given budget. As a result, decisions such as whether to obtain

resources under contract or to use overtime when needed often lie beyond the manager's authority.

The personnel ceiling paints a clearer picture of the constraints imposed by arbitrary resource controls. Each year, OMB establishes a ceiling for individual agencies. This ceiling limits the number of employees an agency may have on its payroll on the last day of the fiscal year. It does not take into account either the work that must be accomplished by or the funds available to the agency. Monitoring employment by ensuring that a ceiling is not exceeded on 1 day of the year only creates an illusion of control; in reality it produces an administrative burden on the agency and affords little incentive for improved management.

The fourth structural barrier involves the organizational configurations and administrative regulations of agencies. During recent years, the overall number of Federal agencies and the size of individual agencies have grown dramatically. Along with this growth have evolved complex organizational structures with multiple layers of line and staff offices and numerous administrative regulations governing agencies' internal operations. Some of the layers result from an agency's failure to decentralize decisionmaking authority to the lowest possible level. Others exist because of an agency's obsession to make sure that no grantee or recipient "gets away" with anything. Consequently, the amount of time it takes some agencies to carry out the routine and necessary steps needed to execute their program missions burdens agency management and hinders its productivity.

Internal administrative procedures of Government agencies inhibit the efficient flow of work. They consume much time, are repetitive, and involve too many people. One source of this "administrative maze" lies in the proliferation of special staff units, whose sole responsibility is to develop internal review and administrative procedures. These staff offices foster the centralization of decisionmaking by dispersing the span of control horizontally and placing a heavy administrative burden on top management.

The larger the agency, the greater are the number of hierarchical levels and horizontal subdivisions or staff offices, and the more centralized the decisionmaking process becomes. Centralized decisionmaking serves to undermine the ability of middle or program managers to assume responsibility, for those managers know that decisions will ultimately be made at a higher level.

Problems with centralized decisionmaking are even more pronounced in agencies using regional and field offices. Even though the use of field offices generally leads to duplication and fragmentation of authority, Federal agencies continue to expand the number of field offices. For example, in a recent 7-year period in what was formerly the Department of Health, Education, and Welfare, the number of field staff grew from 82,000 to 123,000 and field offices from 1600 to 2300. Yet, where Federal agencies have attempted to streamline their organizations, their efforts have been largely stymied by employee resistance to change, lack of top management interest or support, and/or opposition from external institutions, such as constituency groups, who stand to lose something.

Accountability, which is necessary for lasting productivity improvements, has been hamstrung in the Federal Government by the lack of good accountability mechanisms—the final structural barrier. Too often, agencies are beset with unclear agency goals, inadequate productivity measures, poor reporting systems and top management inaction—all essential elements of an accountability mechanism.

Without clear agency goals, establishing meaningful individual and group performance requirements is difficult, if not impossible. Holding managers accountable for improving productivity requires measurement tools for assessing managerial performance. Performance measures such as productivity and work measures identify the need for both rewards and adverse actions and provide tools for tracking change. Yet, in the Federal Government, little effort has been made in developing, using, and refining performance measures.

Where measurement tools have been developed, inadequate and inaccurate reporting often results from poor reporting standards, coupled with the lack of information control or monitoring and the lack of management commitment. Such problems combine to make accountability nearly impossible in the Federal Government.

Environmental Barriers to Productivity Improvement

Perhaps the most obvious environmental barrier is low morale. Managerial morale presents a rather special problem to the Federal Government because managers are either political appointees who serve as an agency's top administrator for relatively short tenures or career (professional) managers who serve in positions subordinate to the political appointees and who have progressed in the Federal hierarchy through years of Government service. As a result of this dichotomy, conflict is inherent among these managers, whose goals and opinions differ in both purpose and direction.

Not surprisingly then, career officials tend to be wary of political appointees who rarely consult with career officials in priority decisionmaking actions. All too often, professional managers are used by appointees as "fall guys" for program problems and failures. Hence, what evolves is a "working relationship" built on political versus professional manager fingerpointing.

Everyone is familiar with the popular position taken by political candidates and parroted by the media, which attacks bureaucracy. Although rhetoric and proposals to put Government workers to work are well-intentioned, they serve to discredit public employment and to devastate employee morale. Rare is the occasion when an example of good Government policy or practice makes a headline, but publicity on Government waste is common. Senator Proxmire's Golden Fleece Award is a good example of the latter.

Another factor contributing to low morale is the Federal pay structure. Federal executives know that

they are paid far less than their private sector counterparts. In fact, the present system of adjusting Federal pay has not come close to providing salaries commensurate with responsibilities. Because they are tied to congressional pay, Federal salaries were a political issue. In 1978, according to the Advisory Committee of Federal Pay (which meets annually to review pay matters), the top three levels of Federal executives lagged behind their private sector counterparts from 7 to 46 percent. Furthermore, since 1969, the purchasing power of Federal executives has decreased by 20 percent. A recently published study by the Brookings Institution¹ portrays the executive pay system as the product of aimless experimentation which has given little consideration to the economics of the labor market and which should be abolished. Hence, given current inflation, Federal executive pay scales do little to generate job enthusiasm and commitment to productivity improvement.

The level of managerial experience of the top Federal managers presents yet another barrier. Although the majority of politically-appointed individuals are placed in positions requiring substantial management responsibility, their former activities—education, law, politics—may have involved little, if any managerial functions. Rarely is an appointee chosen on the basis of administrative capability. Instead, the appointee's ability to add lustre to the Administration, to win confirmation, to appeal to interest groups and to provide leadership in policy determines the selection criteria.

It is not surprising, then, that many appointees are unfamiliar with the laws, regulations, and programs of the agencies to which they are appointed. Although this knowledge can be learned over time, say 1 to 2 years, officials are likely to make costly mistakes in the interim which can be detrimental to the agency's productivity. Further, for a variety of reasons including poor compensation levels, the turnover of political managers tends to be high. In fact, the average tenure of an Assistant Secretary is only 19 months. As a result, key management positions are continually being filled by

persons without managerial experience or agency knowledge. This situation does little to increase the effectiveness and efficiency of an agency.

The fact that Federal managers do not consider productivity as important is the final environmental barrier. Because productivity improvements are difficult to achieve and require continuous managerial efforts, they typically exceed the tenure of appointed officials. Since these managers determine agency priorities, productivity improvement is infrequently given top priority attention.

In running the Government, effective policy setting and direction are generally considered more important than achieving managerial efficiency. Program administration is not one of the big issues on which voters, reporters, and academicians judge an administrator's overall effectiveness and on which the manager's reputation is made or broken. As a former Secretary of the Treasury put it:

You learn very quickly that you do not go down in history as a good or bad Secretary in terms of how well you ran the place... You are perceived to be a good Secretary in terms of whether the policies for which you are responsible are adjudged successful or not: what happens to the economy, to the budget, to inflation... Those are the things that determine whether you are a successful Secretary..."²

In the past, the Congress has likewise shown little support or interest in productivity improvement. This fact should not be startling in view of the many matters requiring the attention of the Congress. Without strong, visible, and sustained interest in productivity efforts from the Congress and the Chief Executive, significant and lasting productivity gains will be difficult to attain.

Prospects for Federal Productivity Improvement

From the preceding review of barriers emerges a relatively bleak picture of productivity improvement in the Federal sector. Yet, between

1977 and 1978, Federal productivity increased by 1.7 percent compared to private sector growth of 0.5 percent. Further, some excellent examples of successful and innovative Federal efforts to enhance productivity exist in the Departments of Defense, Treasury, and Agriculture, illustrating that productivity improvement is possible under existing constraints.

Over the years, the Federal Government has been a leader in the development of technology—computers, telecommunications and the like—and has achieved significant productivity improvement and cost savings through the use of such technology. For example, by installing an electronic funds transfer system for Federal benefit programs (e.g., veterans benefits, social security), the Treasury Department has virtually eliminated the need for checks. Currently, 25 percent of all payments are made through this system, and the Department predicts that by 1985 it will increase to 55 percent. In dollar terms, savings to the taxpayer amounted to \$80 million for fiscal year 1979.

Still, the barriers to Federal productivity improvement are real, and significant efforts to improve productivity are more the exception than the rule. What then can be done to stimulate productivity and to eliminate some of these barriers?

Perhaps the greatest promise for raising Federal productivity lies in three areas—accountability mechanisms, the personnel system and the budget process. First, performance and work measures need to be developed and used. These measures give managers an objective tool for making decisions on the allocation of resources and for evaluating the performance of their staff as well as themselves. Secondly, the spirit of the Civil Service Reform Act needs to be carried out. A key provision of the act ties managers' pay to performance and designates productivity as a measure of performance. In addition, the act mandates that performance standards be established for rating managers, a requirement which fits nicely with the need for accountability mechanisms. Finally, the budget process which controls resource inputs must allow mana-

gers greater flexibility to use their resources cost effectively and must reward managers and their agencies for productivity improvements.

These three areas provide realistic, feasible opportunities for productivity improvement because they can be accomplished within the existing framework of the Federal Government and because they are interactive. The Civil Service Reform Act is already in place. Full implementation of the act should

further stimulate the development of accountability mechanisms. And, with a shift in attitudes on the part of the Administration and the Congress, the budget process can encourage productivity programs by rewarding agencies which have significant productivity improvements and using them as models for other agencies to follow.

Today, in both the private and public sectors, exists a heightened awareness of the importance of

productivity growth to our nation's economy. Hopefully, productivity will become something more than just a "buzzword." The time is ripe for developing and instituting productivity improvement programs throughout Federal agencies. With top level management support and commitment from both the executive and legislative branches, these efforts can and will succeed.

¹ "The Rewards of Public Service: Compensating Top Federal Officials," Washington, D.C.: Brookings, Feb. 25, 1980.

² Blumenthal, W. Michael, "Candid Reflections of a Businessman in Washington." *Fortune*, Jan. 29, 1979, p. 39.



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Expenditure Analyses by GAO: An Idea Whose Time Had Not Arrived

In August 1979 the Comptroller General established a special project to summarize the significant internal events, directions, and changes that have or will have occurred during his term of office. A small group is capturing the views and recollections of the key people who participated in this work during the Staats tenure. Publication of the history is slated for February 1981.

During our research on the Staats era, we uncovered a fascinating and little-known episode in GAO's history concerning a provision of the Legislative Reorganization Act of 1946. Had this provision been carried out as intended by the framers of the law, GAO could have been routinely conducting management analyses and possibly program results reviews long before Mr. Staats became Comptroller General. Therefore, although this act and its effect on GAO fall outside the project, we feel that the matter deserves a separate account.

Thirty-five years ago, the Congress acted to involve GAO in broadly defined "expenditure analysis" of executive agencies and Government corporations, but then had second thoughts only 1 year later. Through the inclusion of section 206 in the Legislative Reorganization Act of 1946, the Congress hoped to initiate GAO investigations of "whether public funds have been economically and efficiently administered and expended." However, despite the passage of the Legislative Reorganization Act of 1946, GAO was never granted funds to carry out the provisions of section 206.

The text itself of section 206 is as follows:

Expenditure Analyses By Comptroller General

Sec. 206. The Comptroller General is authorized and directed to make an expenditure analysis of each agency in the executive branch of the Government (including Govern-

ment corporations), which, in the opinion of the Comptroller General, will enable Congress to determine whether public funds have been economically and efficiently administered and expended. Reports on such analyses shall be submitted by the Comptroller General, from time to time, to the Committees on Expenditures in the Executive Departments, to the Appropriations Committees, and to the legislative committees having jurisdiction over legislation relating to the operations of the respective agencies, of the two Houses.

Exactly why the Congress retreated from section 206 is hard to judge. Some GAO officials told us that the former Comptroller General, Lindsay C. Warren, was quite concerned about the impact this type of work would have on GAO's future.

While the effect of Comptroller General Warren's concerns on the Congress' reversal is difficult to assess now, one thing is quite clear: there was considerable confusion within GAO about how section 206 should be interpreted and acted upon. To some, the legislation seemed to call for a complete reorganization of GAO itself; to others, section 206 required a purely accounting or auditing type of expenditure analysis, without any inquiry into problems of general administration.

In 1945, before the reorganization bill was introduced, Mr. Warren testified before various committees on the topics of financial control of Government corporations and the Congress' use of GAO in oversight of Federal agencies. For example, on May 15, 1945, before the Joint Committee on the Organization of Congress, Warren submitted several recommendations to strengthen control over expenditures and application of funds. Among these, Warren suggested "better informed scrutiny by the Appropriations Com-

mittees of budget estimates" and the "removal of many small statutory restrictions which hamper administration without accomplishing legislative purpose."

On December 6, 1945, the Government Corporations Control Act was signed into law, authorizing GAO to audit Government corporations. The Comptroller General had worked hard to assure its enactment. In a House report accompanying the bill, Warren was quoted as calling this legislation "the most outstanding... since the enactment of the Budget and Accounting Act of 1921." Shortly thereafter, Warren created a Corporation Audits Division to carry out this new responsibility.

Oversight Beginnings

On May 13, 1946, Senator Robert M. LaFollette, Jr., (R., Wis.), Chairman of the Joint Committee on the Organization of Congress, introduced a bill in the Senate to "provide for increased efficiency in the legislative branch of the Government." Besides reorganizing and reducing the number of committees, the legislation specified for the first time that the Congress' oversight of laws was the responsibility of its committees.

A section of the proposed LaFollette bill directed the Comptroller General to make an "expenditure analysis" of Federal agencies which would enable the Congress to determine whether money had been "carelessly and extravagantly" administered and expended. The bill, referred to the Special Committee on the Organization of Congress, came back to the Senate on May 31, 1945, with an amended version of this section substituting "administrative management analysis" for "expenditure analysis" and replacing the words "carelessly and extravagantly" with "economically and efficiently." The amendment passed the Senate, and, with the approval of the whole bill on July 25, 1946, it was sent to the House.

The Senate report accompanying the amended version of the bill (S. 2177) explained the section in the following way:

As a further check upon the financial operations of the Government and its care in handling public funds, the bill (S. 2177) authorizes

and directs the Comptroller General to make administrative management analyses of each agency in the executive branch, including Government corporations. Such analyses, with those made by the Bureau of the Budget, will furnish Congress a double check upon the economy and efficiency of administrative management.

However, in the House, the language of the section was amended back to its original language—"expenditure analysis." The other Senate amendment, which incorporated the words "economically and efficiently," was retained, however. It was in this form that the bill won approval of both Houses.

Reaction Within GAO

While the Congress was deliberating these changes, GAO management viewed the proposed legislation with great concern and some uncertainty. Comptroller General Warren requested a preliminary study by the Chief of the Office of Administrative Planning, J.C. Nevitt. Nevitt's study, dated July 23, 1946, noted the difference in the House and Senate versions of the bill. He saw the House language (expenditure analysis) as far more restrictive and, if literally construed, the section would limit GAO to "analysis of the expenditure side of fiscal transactions." At the same time Nevitt could not help recognizing that the bill "places the Comptroller General in a peculiar position in forming opinions on the basis that they will enable Congress to determine whether public funds have been economically and efficiently administered and expended."

Nevitt suggested that the section be reworded. The phrase "analysis of fiscal transactions," according to Nevitt, would clear up the confusion. Regardless of the language, however, Nevitt saw clearly that the purpose of the section would "place a burden of major magnitude" on the GAO. Interestingly, Nevitt also stated that:

While we have had much of the authority contained in the section in various provisions of the Budget and Accounting Act, comparatively little has been done in 25 years to develop this function of the Office.

On July 29, 1946, Warren received a letter from the Bureau of the Budget requesting his comments on the reorganization bill and an estimate of the cost of fulfilling section 206. Warren responded on August 1, declaring that the section would require "much preliminary study before adoption of a final procedure. After completion of such study it may be found necessary to recommend clarifying amendments to this section." Warren said the cost would "obviously be considerable" but he could offer no definite estimate until the study was completed.

On the same day, Warren created a special committee of three top GAO officials to study the bill and assist the Comptroller General in determining how GAO might equip itself to do the work of section 206 and, also, whether "any clarification or amendment...should be recommended." The very next day, President Truman signed the Legislative Reorganization Act of 1946 into law.

Over the next several months, Mr. Warren and his committee prepared themselves to meet the challenge of the new law. The committee met with various members of the academic community and the accounting field. They also wrote several reports on the meaning of section 206 and how GAO should fulfill it. A figure of \$1 million was worked out as the initial cost of the program. Moreover, to carry out section 206 insofar as it related to Government corporations, Warren ordered his Corporation Audits Division, not yet a year old, to embrace these duties.

On December 16, 1946, E.R. Ballinger, Director of Personnel and a member of Warren's committee, explained to the Comptroller General in a memo that "under Section 206 there is practically no limit to which we might not go in determining the effectiveness of administration in all of the agencies in the Executive Branch of the Government, including Government Corporations." The first priority of GAO's program, according to Ballinger, should be the development of "practical criteria and standards for evaluating the effectiveness of administration."

To give scope to this need for evaluation, Ballinger compared

GAO's work to that of a physicist, saying that "as a physicist can determine the materials and the quantities of materials in steel in just a few minutes, . . . so, if we are to do a complete and accurate job of evaluating management, and at a reasonable cost, we should devise tests and processes which will be simple, effective, and speedy of application." Ballinger added that GAO should also respond immediately to requests for assistance from the Federal agencies, if they are "experiencing difficulties in administration."

Ballinger went on to suggest that section 206 could include studies of "the soundness of the organizational structure" of an agency, "the competency of its personnel," and "the nature and propriety of its operating philosophy."

Summing up, Ballinger advised that GAO's approach to the problem "be one of complete and sympathetic cooperation with the agencies concerned and with the Congress to the end that, with the exceptions which are bound to occur, we will develop over the years a community of interest which not only will make our job easier and more effective but will make more effective the work of the other agencies concerned and more accurate and well-considered the conclusions of Congress." How similar these words sound to much more recent urgings that GAO staff adopt a more cooperative attitude toward Federal agency management!

A final report, submitted to the Comptroller General by the GAO committee on January 20, 1947, compared section 206 to the responsibilities of the Bureau of the Budget. The report noted that, whereas section 209 of the Budget and Accounting Act of 1921 authorized the Bureau to undertake detailed studies of Federal agencies at the request of the President, section 206 of the Legislative Reorganization Act would require similar reports to be made by GAO for congressional purposes. The committee also called section 206 "the greatest responsibility in the field of Federal administration that has ever been conceived in any legislative enactment." They advised that the Comptroller General establish a new division to assume

the responsibilities of section 206.

Another report, filed on April 24, 1947, by Moore Lynn, principal accounts auditor, was even more bold in its interpretation of section 206. Mr. Lynn remarked that, by adhering to the language of section 206, "the Comptroller General has an opportunity to contribute materially to the constitutionally required balance between the legislative and the executive branches of the Government." Lynn referred to the hearings before the Joint Committee on the Organization of Congress, in which Senator Styles Bridges (R., N.H.) stated:

The important need confronting the Appropriations Committees is not only an accounting of expenditure in terms of honesty, or even compliance with congressional restrictions, but an accounting which discloses and measures the executive performance.

Cost As Inhibitor

The actual fate of GAO's response to section 206, however, was decided on the basis of Comptroller General Warren's \$1 million request for fiscal year 1948 to implement the new law. On April 9, 1947, Warren testified before the House Appropriations Subcommittee on the Independent Offices about this request. Five weeks earlier there had been an informal meeting between Warren and approximately 25 members of the Appropriations and Expenditures Committees of both Houses to discuss the problems of section 206, but no records remain of what was said. However, one GAO memo reports that during the meeting, it was agreed that "a modest beginning should be made" in administering section 206.

Warren's testimony gives us a fairly clear picture of GAO's position regarding section 206. He began by intimating that the section was not drafted with enough care:

Section 206 is a mammoth, and if I might use the word, an almost stupendous job. We look upon it with some trepidation. It puts the General Accounting Office in a position we have not been in before, and while I will not discuss that phase, I do not know how much consideration was given to the effect of that language (of section 206).

Warren reiterated much of the advice given to him by his committee. He told the subcommittee that GAO would establish a "small and highly efficient organization" for section 206 which "would not go into every agency immediately and make an efficiency examination. It has to be selective, and based on our experiences with the different agencies or on your (Congress') needs here, we have to pick them out."

The subcommittee also gave Warren a chance to explain his concern with the language of the section. When asked by subcommittee Chairman Richard B. Wigglesworth (R., Mass.) whether Warren had any estimate as to how long it would take to check each agency, Warren replied that it would take many years—unless GAO were to create "a veritable army of employees." Thus Warren, who had made it plain to the committee that he wanted to reduce GAO staff, spelled out the impossibility of carrying out section 206 to the full letter of the law.

Taking the cue from Warren's testimony, the House Committee on Appropriations recommended in their report on the Independent Offices Appropriation bill that the Congress deny GAO the \$1 million requested to carry out section 206. The report said, "The committee is of the opinion that this...proposal should be deferred until a more complete and definite program can be evolved." Speaking on the floor of the House on June 17, 1947, Congressman Wigglesworth explained that, "with the assistance already being provided by the General Accounting Office in its regular reports..., no additional appropriation...can be justified at this time." Wigglesworth added:

"I have discussed this matter with the Comptroller General, and he does not object to the elimination of this item of \$1,000,000, under all the circumstances involved, provided it is understood his office cannot begin work pursuant to this new function unless and until an appropriation is made therefore at some later time." (Emphasis added).

Such an appropriation, however, was never granted to GAO. In considering the Independent Offices Appropriation bill for 1950, the Senate included \$800,000 for GAO to begin to carry out the duties

under section 206. While this amount was included in the bill as passed by the Senate, it was eliminated in conference.

On January 23, 1952, when Warren appeared before the Independent Offices Subcommittee of the House Appropriations Committee, he again pointed out that, if it were the desire of the Congress for GAO to proceed with the work contemplated by section 206, it could not be done within GAO's regular appropriations. The estimate of \$1 million was again pro-

posed. However, the Appropriations Committee, in reporting the Independent Offices Appropriation bill for 1953, made no mention of section 206 in the committee report and no funds were included in the bill for GAO to go ahead with the work.

Not until the Staats tenure did such issues as management analysis, and eventually program evaluation, again take center stage at GAO. The history of section 206 of the Legislative Reorganization

Act of 1946 not only provides GAO's current program evaluation activities with an interesting prehistory, but also shows the foresight and vision of many GAO officials and the Congress itself. In 1946, section 206 was an idea whose time had not yet arrived.

Congress in the Year 2000

Alvin Toffler

Mr. Toffler discussed "Congress in the Year 2000" as part of the Dialogues on America's Future series presented by the Congressional Clearinghouse on the Future.

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We are entering a revolutionary period that in the next 10-30 years will alter technology, economics, family arrangements, values, and our deepest assumptions about democracy and representative government. We need to think about a reconstitution of our entire political structure.

Around the world there is a belt of industrial countries from North America to Europe to the USSR to Asia—two dozen countries, one billion people. This belt consists of countries with differing political systems and ideologies, but below this are similarities. The world industrial system, not just capitalism or communism, is breaking up.

In order to better understand what is happening, one can think of waves of change. The first wave was triggered by the invention of agriculture, and happened 10,000 years ago, crawling slowly across the planet. The first wave took 10,000 years. Then 300 years ago, the second wave was launched by the industrial revolution, and again, great forces rolled across the planet. In three centuries, the industrial belt was created. One billion people now live in second wave societies. What is happening now is the beginning of a third wave

which is shattering the basic institutions of the second wave cultures. This is not a return to a pre-technological past, but an advance on to a new stage of evolution.

Beneath some surface differences, there are fundamental structures of industrial civilization. All industrial civilizations are dependent on fossil fuels, use mass production, mass distribution, mass education, mass communications. All have nuclear families as the basic social unit. And all these institutions fit together in a particular way. The mass production serves the mass distribution systems that the family fits into. Political institutions are part of that social system. Just as the nuclear family is the standard model for industrialism, so representative government is the key political technology of the past 300 years. The men and women who invented this system were heavily influenced by industrial ideas, specifically, the idea of the machine.

Today, all the main institutions of second wave countries are in crisis: energy systems, family systems, health systems, economic and urban and welfare and nation-state and value systems. Why would the political system not be so affected?

It is impossible that Congress in 2000 will be the same as today. Why would this institution survive unchanged while all others are profoundly changed? People inside an institution seldom sense when the institution is approaching a crisis point.

It is impossible to be simultaneously blasted by revolutions in technology, family life, and energy, without facing a potential political revolution. These things are not unrelated. All the tools now used to make collective decisions are increasingly obsolete and about to be transformed. A third wave civilization cannot operate with a second wave political structure. We must invent new political tools.

The past fifteen years have seen an unstable presidency in this country, with assassinations, scandals, unelected presidents; all these events are related. The Congress is so overloaded by conflicting demands and oceans of unsynthesized data, so many pressures and demands for instant response. The institution is creaking and overloaded and unable to churn out intelligent decisions. Government policymakers are unable to make high priority decisions or making them badly, while they make thousands of small decisions. When a major problem arises, the solution is usually too late and seldom produces the desired impact.

Not only the U.S. Congress, but similar institutions in many countries face the same situation. The conventional response to this list of problems is "What we need is leadership," some messiah or guru to tell us what to do. This sort of thinking is naive, simplistic and dangerous. The problems arise from institutions designed for earlier periods of history attempting to do the work of today.

Our present Congress was invented before canned food, the first Wright brothers flight, refrigeration, photography, the Besseler furnace, the typewriter, telephone; before the automobile, radio and TV; before Hiroshima and Auschwitz and computers. If any businessman tried to run a business with a table of organization designed two hundred years ago, he would be locked up. Politically, many countries are trying to do just that.

Before deciding on the peaceful reconstruction of the political system, social changes must be considered. There is no question that our dependence on a fossil fuel must move from this reliance on a single form of energy to a multiplicity of forms.

We live with the myth of a national economy; but we are actually a conglomeration of regional economies. Each region is as large and complex as the nation was fifty years ago. We have a set of economies diverging, but we still treat it as a unified economy. Conservatives and liberals struggle with each other, but both are assuming the same thing—that central manipulation of the system can solve the problems. The attempts to control centrally create counterproductive consequences. Solving a problem in one place can create a deeper one somewhere else.

The mass society is de-massifying and moving towards diversity and multiplicity. We will not recreate national consensus because we are not a nation. That we are not one is reflected in the rise of single issue groups, the failure of party mechanisms, all the difficulties of the two-party system. To cope, we must recognize, first, that the problems won't go away.

There is no majority for anything except an artificial one created by forcing people into a two-choice vote. A President elected by 12 percent is not elected by the majority. We need to move toward a democracy of minorities to recognize the existence of complex, multiple and transient minorities, and adapt our political structure to this reality. The lack of appropriate structures today sharpens conflicts between minorities, often into violence. The answer is not to stifle dissent, or to tell minorities that they are selfish. Imaginative new arrangements are needed.

We live in a dangerous world, and we cannot afford to delegate total power to anyone, cannot allow tiny minorities to make vast decisions that tyrannize all other minorities. The crude, second-wave methods of pursuing the elusive majority must be drastically revised. New approaches designed for a democracy of minorities are needed.

The concept of voting must be revised. Now when a quantitative count is taken, nothing is known about how badly the voters want what they voted for. Eventually, a more continuous flow feedback system in political structures will be developed. A wide variety of voting and weighting procedures must be experimented with. Last year the first electronic town meeting took place on the Columbus, Ohio QUBE cable TV system—an interactive system. The program was directed to people in one small suburb. Previous to the meeting, a preview program, outlining some of the issues, was shown repeatedly. On the night of the meeting, the town commissioners sat in the studio. Each TV set had "hot buttons," enabling the viewers to respond to the program. The issues were presented one by one, and the viewers responded. This sort of system can be developed for broader use in the political process.

In designing a Congress for the 21st century, all available tools should be used. We need to redistribute the decisionmaking process. There are too many made in Washington, not enough transnationally, and not enough regionally and locally.

The Constitution was written when the most basic principle of production was land, and so geographic representation was written into it. It was written at a time when the United States had a miniscule population, uneducated masses, a simple division of labor, few links to the outside world, a non-urban setting, all operating at relatively low levels of social diversity and slow speeds. There are risks in looking at the Constitution fresh, for history tells us that no institution or constitution can be permanent. The risks of change are great, but those of not changing are greater.



Joe Gloystein

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Work Force Planning: Time for Renewed Emphasis

How many people will your organization need this year? The answer to this important question is difficult and depends on the work force planning capability within an organization. Although many inherent barriers and disincentives may affect work force planning, the importance of this area is gaining renewed emphasis as political and economic conditions continue to place pressure on improving productivity.

Work force planning is the initial step in planning for human resources in organizations. This process of determining reasonable staff needs is essential to maintaining or improving an organization's productivity. Overstaffing can lower productivity, while understaffing can cause unfulfilled program objectives, curtailed services, work backlogs, unnecessary overtime, and low responsiveness and morale.

As total personnel costs for the Federal Government increase, the political pressures also increase the base agencies' budgets on a reasonable determination of staff requirements. Since legislators are concerned about controlling these resources, they want to be assured that budget justifications for staff are based on a realistic analysis of the work to be accomplished during the next budget year. The Congress has expressed concern for agencies to determine their staff needs through a reliable and valid process. The Office of Management and Budget has also encouraged the use of budget techniques which ensure that all programs are justified by an analysis of the people required to do the work.

More importantly, agencies with credible work force planning systems should be more successful in justifying the need for staff. The information created by these work force plans is essential in determining the most efficient staffing levels within an agency. Work force requirements have direct results in

more efficient procedures, a more effective management evaluation process, and clearer mission, which improves accountability. Finally, since organizations and resources need to adapt more quickly to workload changes in today's environment, more attention is given to the importance of this area.

Disincentives to Work Force Planning

The disincentives for developing work force planning systems are plentiful and deeply ingrained in budget and personnel systems. One primary disincentive is that the budget process emphasizes short-term productive resources rather than long-term investments in resources for developing management systems.

Another related disincentive is the variation between submitted budgets and finally approved budgets. Many of these variations relate to arbitrary budget decisions such as ceiling freezes and across-the-board cuts. Such actions can be counterproductive to effective work force planning, encourage uneconomical staff alternatives, and contribute to inflating staff needs.

The tendency to disregard complete costs is another disincentive within Government organizations, and it is reinforced by the emphasis on accomplishing objectives without analyzing the full costs involved—effectiveness at the expense of efficiency. "Empire building" is a natural tendency under such conditions. The Government manager who has no incentive for reducing costs may be dependent on increased staff for his advancement.

Finally, the lack of understanding and interest by top managers inhibits work force plans. The lack of a common understanding of the terms involved contributes to the lack of communication and avoidance of the issues. Additionally,

managers may lack interest because some of the essential elements in the work force planning system are considered to be meaningless and mechanical controls.

Many of these disincentives are well known and apply to general management problems within Government. As such, problems have the potential to become excuses for delaying improvements in this area. However, excuses need to be dismissed now because of the need to systematically support funds for Government programs which are under increasing scrutiny. The time is favorable for a renewed emphasis on work force planning because of recent events such as civil service reform with its emphasis on productivity, decentralization, and accountability; technological advances providing the feasibility for automating methodologies/criteria; and renewed emphasis on integrating planning and budgeting activities such as zero-based budgeting.

An evaluation of these activities can make an important contribution to the overall evaluation of Government programs. As part of our priority lines-of-effort in GAO, we recently published the "Handbook For Government Work Force Requirements," FPCD-80-36, Jan. 28, 1980. It has many of the criteria used to evaluate past work force planning in Government agencies including design considerations, essential elements of the work force planning process, and management controls. Some Federal agencies have started to use the handbook as a model in evaluating their systems. The following summarizes this information.

Design Considerations

Since a requirements process could involve substantial resources, a system's plan and design should be considered in the evaluation process. Before designing a staff requirements plan, a manager should consider the overall strategy and techniques needed for identifying and measuring work, including their costs and benefits. It should be compatible with existing resource management systems to gain management's acceptance.

Since Government agencies are mostly service organizations, managers tend to believe that their workers and their functions cannot be accurately identified and measured. This implies that employees are performing tasks which do not result in a useful end product. However, many experts would agree that the type of work the Government performs is not essentially different, as viewed from a management perspective.

Careful Advance Planning

An organized approach in estimating work requirements is important for the plan's success. Obviously, a step-by-step approach will reduce confusion, duplication, or important omissions. However, changing the current process or designing a new one can be a big investment. Costs for hiring, training, and maintaining qualified staff can be substantial, and careful evaluation of total costs vs. benefits should precede any decision to modify the requirements process.

Full use of the information in the work force planning system may be a problem because of numerous disincentives; however, many problems in the early planning stages could be resolved by examining how work force planning data and processes fit into the overall human resource system. Extensive data may already be collected, analyzed, and available for use in determining staff requirements. Reducing the risk of collecting and analyzing data in duplicate can enhance overall organizational efficiency. Participants in the design should include representatives from line organizations, including those responsible for personnel operations, organization and management planning, accounting and budgeting, and other portions of the management information system. The preliminary design stage of the requirements process should build on existing resources without duplicating them.

How To Determine Staff Needs

An examination of the basic methodologies and processes in-

involved can ensure that the resulting output is reliable. An effective plan to determine staff needs will

- select a basic framework of work units for collecting data,
- plan work activities using past information and data analysis,
- convert planned workload into staff time needed and then to full-time equivalents of personnel required,
- analyze full-time equivalent requirements so that management can assess the most effective and economical alternatives for performing projected work activities, and
- support the budget process with these requirements.

The steps are listed in logical sequence; however, many of the initial steps are repeated as the organization gains experience with the process.

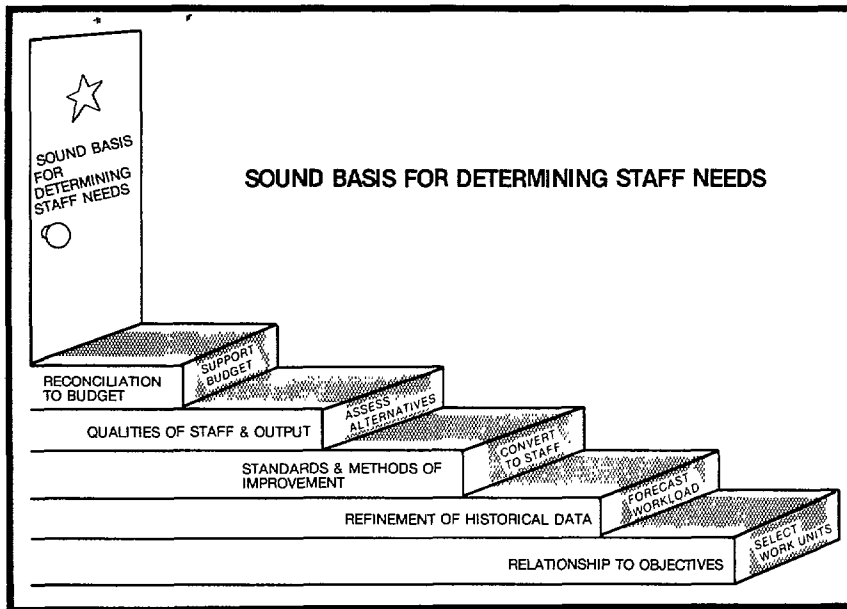
Proper Selection of Work Units

A work unit is a measure of labor treated separately for identification, measurement, and control. Work units are needed to define activities for measuring output in relation to resources.

Even though it may be more difficult to specify activities under these circumstances, selecting appropriate work units will make forecasting work activities, and converting these activities into staff needs, much easier. Some important considerations for developing a work units structure would include identifying levels of work units which relate to organizational objectives, categories of work units suitable for workload forecasting and converting to staff needs within an organization, and distinct elements which are convenient for collecting data.

The initial step in developing work units is to separate the organization's main objectives into successively lower levels of responsibilities and services provided.

Even though there are few or no physical outputs, service organizations can build a work unit structure by analyzing the primary output



measures which best represent work effort expended, in the same manner that a physical product is subdivided. It may be necessary to use completed document or other representative transaction as a primary output measure, or to use other workload indicators which provide an acceptable basis for measuring the scope or dimensions of the workload when it is not practical to quantify a number of diverse outputs.

The selection of work units and their degree of detail depends on whether the units are suitable for forecasting workload and for developing and applying standards or factors for determining staff needs.

Work units can be measured at various levels: objectives, programs output, components related to output, and subcomponents, activities, and tasks. Generally, the lowest level needed would be those work units which comprise the basic output or its main components. The less significant tasks can then be included in the next higher level of service or outputs.

Some organizations with work unit structures find it beneficial to measure the units at lower levels and then aggregate them to summary levels. The extra effort for detailed units is usually justified on the basis of contribution to management efficiency or performance evaluations, rather than on the basis of determining and justifying staff needs. Organizations which

measure such detailed work units usually have industrial-type operations with repetitive tasks which can be analyzed and forecast with confidence.

Work units also need to be separated so that managers can economically collect data on output and time and cost expended. Dividing the primary outputs into successively lower levels of mutually exclusive and all-inclusive work units assures that the overall staff needs will include all the work functions which need to be performed without counting some of the functions more than once.

Finally, the work units should be categorized so that the most economical means of collecting data can be used. Although planners should take advantage of existing data collection procedures, they should also assess the alternative of designing new data collection systems which might further advance the staff requirements process.

Appropriate Forecasting Techniques

Most work forecasting techniques are characterized by uncertainty. Good planners try to select the techniques which will improve the confidence and reliability of the forecasts, realizing that the forecasts will always differ from the actual results. This hazard is usual-

ly less dangerous than not attempting to predict work activities at all. Nevertheless, managers should not invest in elaborate forecasting techniques for highly uncertain future workloads such as those subject to unpredictable political conditions.

Work forecasts generally start with past work activities. Planners then refine the information through various techniques using theories of growth, quantitative reasoning, or actuarial analysis.

The vital role of work unit structure is evident in its applicability to an effective forecast. Work activities having different objectives or requiring different types of skills can be analyzed separately for individual forecasts. When dissimilar conditions are involved, the requirements forecast can be more precise by analyzing smaller segments of work activities.

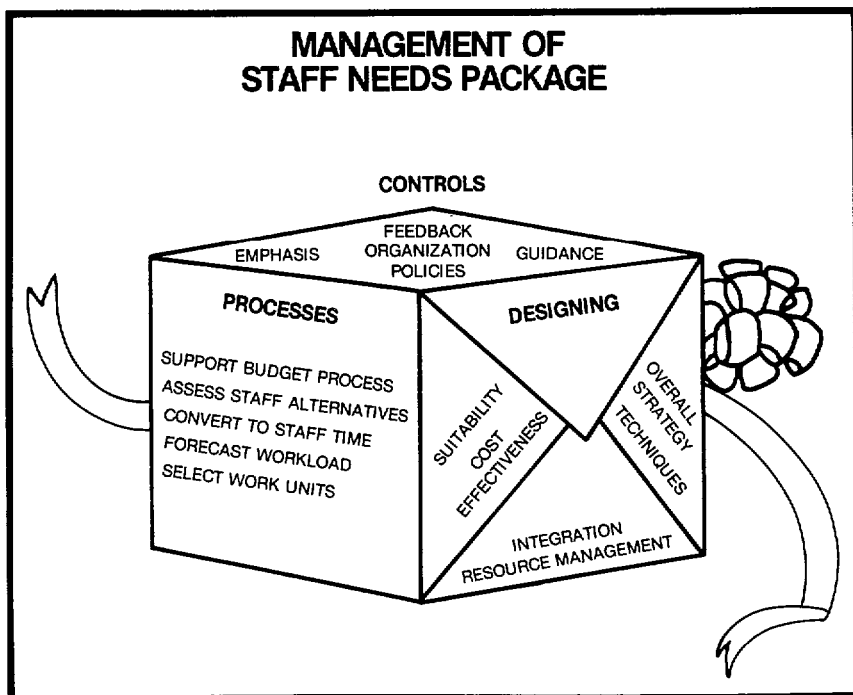
It is not always easy to identify conditions which may change future workloads. An effective approach is to start with provisional forecasts and to continually revise or refine the techniques as causal factors are identified, reviewed, and validated for reasonableness and consistency. Comparing the prior year's forecasts with the current and prior year's accomplishments usually helps to validate the process.

Conversion of Work Forecasts to Staff Needs

Work units provide the basic building blocks to convert workload forecasts to staff time forecasts, and then to equivalent full-time personnel required for a specific time period. In some cases the criteria may be less specific because of the impracticality of quantifying workload with many small and diverse outputs.

Developing Standards To Convert Workload to Time Forecasts

Standards are prepared to indicate the work effort expected of a qualified worker to do a defined amount of work and meet a specified quality at a pace ordinarily used under capable supervision. Standards are usually stated in



Converting Staff Time Forecasts into Staff Required

Estimates of available productive time per worker are used to convert staff time requirements to number of full-time staff or "staff equivalents" required for the workload. Current and complete records of time not spent in performing work activities, such as holidays, leave, and training, should be maintained so that the average working time can be determined.

Assessment of Staff Alternatives

The full-time equivalents should be analyzed so that alternative uses of personnel resources can be assessed. In this way organizations can better decide on the background of personnel needed and whether the work should be performed by existing personnel or by hiring full-time, part-time, or contract personnel.

When analyzing staff requirements, managers should consider the employee qualities needed to accomplish the workload. Problems with morale and productivity may result if the staff is under- or over-qualified. For example, an employee hired without proper qualifications would probably lower an agency's productivity. If the situation was reversed, morale and productivity would drop because employees would lose a sense of accomplishment. Also, using a higher-graded employee to do lower-graded work increases production costs. Therefore, staff requirements mean not only the appropriate size of staff, but their qualifications as well.

The higher cost of quality output should be compared with the actual contribution to the objectives, and to the costs of using qualified contractors/consultants on a less than full-time or permanent basis. For example, new agencies in highly technical areas may find it less costly for contractors to perform some of their functions because of the high quality and varied levels of expertise required. The need for quality staff in certain skills may not warrant hiring full-time staff with these qualifications.

terms of the time required to perform a completed work unit.

Standards can be developed for other purposes, such as work scheduling and production, performance evaluation, and cost control. However, from the viewpoint of requirements, they are important factors for converting the projected work activities into resources needed for a specific time period.

There are many techniques for developing staff standards. Most use work measurement, which is the collection and analysis of data on staff-hours and output by work units. However, there is a wide variety of methodologies with significant variation in applications to types of work and relative advantages and disadvantages. A manager should be familiar with these variations so that appropriate decisions can be made when examining different work situations. Sophistication of personnel and tools available, relationship of work effort to output, repetitiveness of tasks, and the costs and benefits resulting from applying various techniques are some of the important factors for managers to consider.

Some standards are developed by using industrial engineering techniques, such as time study, work sampling, standard data, and pre-determined time systems for for-

mally analyzing and measuring the elements of particular jobs. Other standards, which are less expensive, rely on managerial judgment, professional or technical expertise, and statistical analysis of past performance.

In preparing nonengineered standards, it is generally assumed that past performance has used the most efficient methods and that future conditions will be the same. Where better methods are identified and workable, planners would be foolish not to account for them in applying nonengineered standards. Engineered standards, however, generally include method studies in attempts to improve the efficiency and effectiveness of work activities.

Obviously, the more precise and sophisticated techniques will require more resources, higher quality staff, and an organization with management and experience capable of absorbing and using those techniques. Therefore, the organization may need to build up the system as it becomes more experienced. An original standards system consisting of provisional averages or ranges of data, which may be based only on the judgments or logs of work activities, should enable managers to close the gap between actual and expected time.

Contractors can be a cost-effective option when unique skills are needed for short or nonrecurring requirements.

Yet an excessive reliance on contractors for continuing work can greatly limit an organization's staffing options and management control. For example, the use of contractors to develop standards may limit the organization's flexibility to use its own employees to maintain the system.

Variable workload may also influence the analysis of requirements for full-time and less than full-time positions. There may be valid requirements during peak periods of work which cannot be met by effective use of personnel. Hiring full-time personnel for the total requirements may result in nonproductive time. An assessment would determine whether it would be more economical to require existing full-time personnel to work overtime or to hire part-time or temporary employees. Several items should be assessed, such as the costs involved in hiring, training, salaries, and benefits under each alternative; learning curves; fatigue patterns; and the amount of supervision and overhead required for alternative use of personnel resources.

Requirements Support the Budget Process

Staff requirements should be tied into the budget justification and allocation process. This task will be easier if the requirements process is integrated with the accounting and budgeting processes and if account structures and classification systems are compatible.

The proper determination of staff requirements will also assist the budget allocation process. If jobs and functions have been put into categories and priorities by objectives, the proper mix of jobs can be determined in the allocation process. Accordingly, the agency should be able to determine the most efficient personnel levels during the allocation process using the information from the work force plan.

Management Controls

Management controls are necessary to ensure that the objectives of the requirements process will be met. In implementing these controls, management must establish plans and procedures for carrying out its policies. Management must assure that an adequate and sufficient staff is available to maintain these controls, to carry out the requirements process efficiently, and to provide feedback on how the requirements process is working.

Plans should include keeping standards and forecasts up-to-date. Standards need to be adjusted to reflect changes in organizational structure, procedures, methods, equipment, and facilities which have resulted in more efficient operations. Even without major changes, standards should be periodically updated since some productivity improvement is normal in most jobs. Goals for improving workload forecasting techniques should also be part of the overall plan as outdated workload projections can alter requirements significantly.

Implementation Plan

Goals should be set to develop, review, and update standards and forecasting procedures periodically. These goals should constitute a plan which shows the milestones for improvements over the present coverage by function. For example, the plan for standards coverage should allow improvements to be made in order of priority. Major emphasis should initially be placed on getting these jobs under provisional standards, and then by improving methods. Finally, more precise standards should be developed if cost beneficial.

Provisional standards should be based on the most efficient and economical methods. If practical, methods studies to eliminate non-essential or duplicate operations should be done in the early stages of standard development; otherwise, the provisional data should be

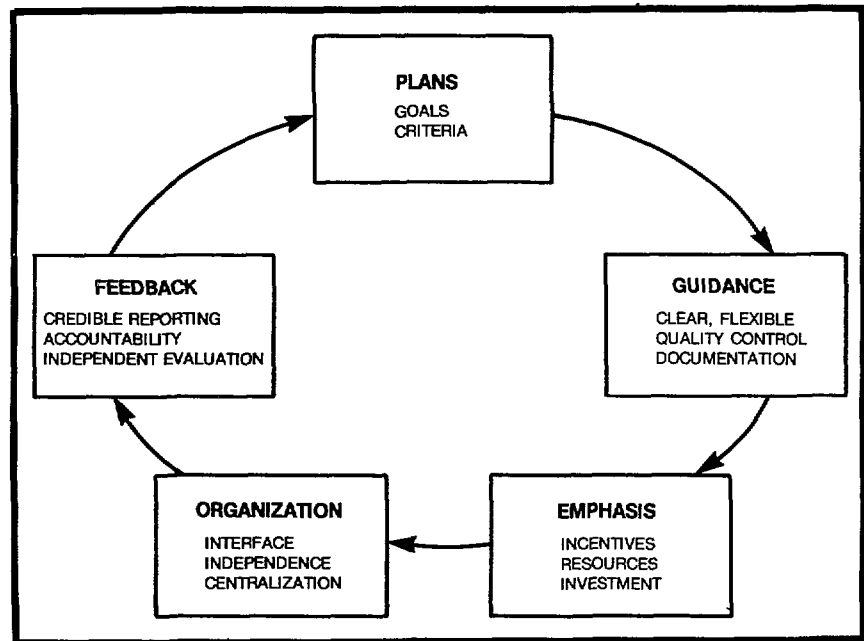
adjusted to reflect the "should take" time after establishing priorities in conjunction with other standards development activities. Finally, the planner should decide the extent to which more precise standards are feasible and practical.

Plans should include keeping standards and forecasts up-to-date. Standards need to be adjusted to reflect changes in organizational structure, procedures, methods, equipment, and facilities which have resulted in more efficient operations. Even without major changes, standards should be periodically updated since some productivity improvement is normal in most jobs. Goals for improving workload forecasting techniques should also be part of the overall plan as outdated workload projections can alter requirements significantly.

Guidelines and Procedures

Explicit procedures, applicable to each organization, should be issued and updated to identify and define appropriate techniques, variables, and convenient sources of data useful in the requirements process. Most importantly, they should be flexible enough to allow managers creativity in developing the most effective techniques.

It should be clear that any and all techniques must be considered in



the forecasting and standards process. The merits of each technique should be assessed for each case. Rigid rules should not restrict the number of techniques. The procedures should require a study of costs, benefits, and reliability of a technique that may fit the circumstances.

Provisions for Quality Control

The procedures should address quality control in terms of reliability and validity of data. The level of quality control desired for the data collection and computations should be well defined in the procedures. For example, procedures for engineered standards should have goals for statistical confidence and reliability. In addition, procedures should be designed to minimize statistical errors and to assure that samples are representative. Explicit procedures should require and govern the review of all data before it is applied.

Sufficient Documentation

In developing, reviewing, and updating standards and forecasts, it is important that the bases for judgments be documented and retained so that they may be examined in any future improvement of evaluation processes. There are no fixed criteria for the amount of documentation needed. Ideally, the most economical system for documentation should be used to provide the support needed for an adequate review process.

Management Emphasis — Personnel Resources

Management emphasis at all organization levels, indicating the importance of using work measurement and forecasting techniques, is a prerequisite for a successful requirements process. Top-level support is vital to develop the process, continue it consistently, and ensure that objectives are met. Sufficient numbers of qualified personnel, including supervisors, should be devoted to forecasting workload and converting it to staff needs.

High-level quality should be maintained throughout the employees' training and development.

If appropriate, management should establish career fields with incentives for employees wishing to include requirements analysis in their professional development. This should reduce staff turnover, reduce redundant training efforts, and increase productivity in the requirements process.

Organizational Placement

Although organizational patterns relating to work force requirements vary widely among different types of organizations, some basic considerations are important.

The organizational placement of the requirements process should ensure contact with all levels of management, avoid unnecessary duplication with other groups, and be independent of those with an interest in expanding their own staff. The need for proper interface with personnel management, organizational management and budget organizations, as well as line managers, is obvious. In fact, many would agree that the line manager should probably play an important role within the work force planning system with the recent emphasis on productivity, accountability and decentralization. However, assistance is needed from various staff elements to provide a centralized core of expertise, and consistent application of overall policy and to achieve potential economies of scale. Some balance is needed to gain the advantages of both the centralized staff and the accountable line manager for determining and using resources effectively and efficiently.

An organizational document should clearly state managers' responsibilities for accomplishing objectives and functions for the requirements process. If updated periodically, this document could be used as input for developing criteria for appraising an individual manager's performance.

Feedback Systems

Reporting systems will enable decisionmakers to monitor conformance with objectives, policies, plans, and guidelines. Such feedback systems could include periodic reports of certain key information

needed by management on an overall or an exception basis. In addition, periodic audits or evaluations should indicate whether the activities supporting the requirements process are accomplishing their objectives.

An effective reporting system allows appropriate levels of management to monitor significant deviations from the plan. It helps managers determine the best possible future program direction and to identify where work measurement and forecasting have been successful. The reasons for success and the areas needing greater emphasis can also be identified.

Costs and benefits should be regularly reported. For example, savings from developing and applying standards and method improvements studies should be reported by lower-level managers so that the costs of implementing these techniques can be compared. This information can be used as a basis to appraise the results of individual managers' work against preestablished performance criteria. It can also be collected and analyzed to continue the initial cost-benefit analysis through implementation of the requirements process. Managers selecting the forecasting technique must consider the degree of reliability possible or needed in relation to cost. If the work for the future period is highly uncertain, only a great need for very accurate projections could justify extensive time and effort.

The most expensive standards should normally be used only for work which has many repetitive tasks or where the costs of the standards development can be offset by sharing data and improvements among several operations. An audit trail of information should be established so that a more complete analysis can be made by management, and later by independent evaluators.

Independent Periodic Evaluation

Independent periodic evaluations of the system will enable management to determine whether the requirements process contains adequate controls and is achieving its objectives. The evaluations should be performed by an organization

which conforms to high-quality audit standards and reports directly to upper-level management.

Conclusions

With emphasis on budget cutting

and efficiency, there is a need for a credible system to determine staff needs. However, disincentives which inhibit effective work force planning must be achieved. There is also an opportunity to provide managers with incentives and to

hold them accountable for the most efficient and effective use of resources. Evaluation of this important aspect can play a significant role in enhancing the overall effectiveness and efficiency of an organization.

Day Care Centers: How To Choose



Anne Caron Kornblum

Ms. Kornblum joined GAO's staff at the Boston regional office after graduating from the University of Massachusetts (Amherst) with a B.B.A. degree in accounting. She later transferred to the New York regional office. Ms. Kornblum has been with GAO for 4 years.



During a recent assignment, I had the opportunity of visiting day care centers to review the U.S. Department of Agriculture's Child Care Food Program.¹ Not being a parent, I had never given much thought to day care and believed that all centers were alike. However, this assignment convinced me that there are many differences between day care facilities, the services they offer, and their cost.

Institutionalized child care has recently become a big business. Just a generation ago child care was almost exclusively provided in the home by the mother, or, if the mother worked outside of the home, by a grandparent or close relative living with the family. Changes in the economic and social structure of

the family have created a need for child care outside of the family unit. This has led to a variety of formal and informal arrangements for child care, including exchanges with friends, neighbors, and relatives; paid babysitters; group day care facilities; child care co-ops; and children who take care of themselves (the so-called latch-key kids).

Informal arrangements are usually more flexible. Unexpected overtime or travel need not create serious problems. If arrangements are made with a neighbor, the child may develop a more immediate sense of community identity by using neighborhood play facilities and forming neighborhood friendships. On the other hand, informal arrangements can turn into night-

mares. Though more flexible, informal arrangements may also be less reliable. Unexpected illness or other commitments of the caregiver may leave the family with no suitable alternatives on very short notice. If this happens regularly, it can confuse the child and threaten the jobs of one or both parents. Informal arrangements may also raise the question of legal liabilities for injuries sustained by the child.

One of the most popular alternatives for parents today is group day care facilities. A 1976-77 study prepared for the U.S. Department of Health, Education, and Welfare reported that approximately 900,000 children were enrolled in over 18,000 day care centers in the United States.² By 1979 the number of children enrolled in centers reached 1.6 million, almost doubling in 2 years.³

If group day care is an alternative you are considering, how can you make an intelligent decision on which facility is best for you and your child? The best approach is to get all the information available on each facility and its services. You may start by developing a list of all available facilities. Ask neighbors, friends, and religious and civic groups in your neighborhood and near your workplace. Look in the telephone book and local newspapers. Next, visit the facilities and ask these questions.

What are the qualifications of the caregivers?

Many centers call their staff members "teachers," but they may not be certified by the State Teachers Association. Are staff members paid, are they volunteers, or are they both? Paid staff members may be more reliable and better trained. Volunteers might provide an advantage in keeping the cost of services down. If the volunteers are the parents of the children, they may be very concerned with the type of environment provided.

What is the child/staff ratio?

Federal, State, and local regulations govern child/staff ratios. Federal regulations only apply to centers receiving reimbursement under certain Federal programs.

There is no final authority on what is the best child/staff ratio. New Health and Human Services regulations scheduled to take effect in September 1980 suggest the following:⁴

allowable attendance should be listed on the center's Health Department license.

Age of Child	1980 Child/Staff Ratio Based on	
	Enrollment	Attendance
Birth to 2 years	3:1	3:1
2 to 3 years	4:1	4:1
3 to 6 years	9:1	8:1
6 to 10 years	16:1	14:1
10 years or older	20:1	18:1

Some States and localities have more stringent requirements; some have none at all. But knowing the child/staff ratio at a center will give you a good indication of how much individual attention your child will receive.

What is the staff turnover?

Centers with high staff turnover rates should be avoided. It takes children time to get used to new people and to feel comfortable with them.

Is the center licensed?

Day care centers are regulated by Federal, State, and local agencies. Federal regulations apply only to centers receiving funding under the Social Security Act (Titles IV and XX) and under the U.S. Department of Agriculture's Child Care Food Program. State and/or local requirements guide program characteristics, enrollment policies, staff qualifications, group sizes, and child/staff ratios. Local regulations also cover fire, health, and housing codes. State and local regulations vary greatly. It is best to find out what regulations apply to your particular locale. Ask if the centers you are considering have up-to-date licensing.

What facilities does the center have?

Some centers have swimming pools, playgrounds, and lots of space indoors and outdoors for the children. Others are small and cramped and the children must be transported to parks or playgrounds.

What is the total enrollment of the center?

Even the most spacious facility can become cramped if too many children are enrolled. The maximum

How long has the center been in operation?

Centers that have been operating for a while can provide references, which should be checked thoroughly. If a center is new, it should be checked in detail. Centers refusing to provide references should be crossed off your list.

What are the center's operating hours/weeks?

Some centers are open 10 hours a day, giving parents adequate time to drop off and pick up their children and still work normal hours. Other centers may only be open for part of the day. Some centers close for school holidays and for the summer.

What services do the centers provide?

Most centers provide meals for the children, including breakfast, lunch, a morning and afternoon snack, and sometimes supper. Some centers are vegetarian or kosher. Check to see if meals are planned by a trained nutritionist.

Centers may provide health and educational testing of children. These tests may include hearing, speech, or visual testing; psychological or developmental testing; and physical or dental examinations. Most centers require vaccinations prior to enrollment.

Some centers pick up children at their homes in the morning and drop them off at night. Others provide transportation from local schools to the center for their "after-school" children. Some centers don't offer transportation.

What are the ages of the enrolled children?

Some centers have minimum and maximum age limits for children. They won't enroll small children or

children with mental or physical handicaps because of the intense care they require. Also, ask how children are grouped. Centers may group children according to their age, size, sex, or abilities and gear their programs toward these groups.

What are the center's fees?

Fee schedules may be based on parents' income. Lower income families may qualify for free day care services (this can be checked through your local family service agency). Fees depend on whether the center is profit-making or non-profit, and whether the staff is paid or volunteer. Fees can be based on daily, weekly, monthly, or annual rates. Some centers give discounts if more than one child in a family is enrolled. Beware of hidden charges. Some centers require payment for child absences or vacations. Some centers also have late pick-up fees (e.g., \$5 per minute past closing time).

Fees vary by center, but so do the services. If you investigate a number of centers, you should be able to tell if a center's fees are in line.

What are the center's rules and policies?

Some centers don't allow parents to visit their children during the day because they claim it disrupts the child's routine and the teacher's concentration. If the center is near your workplace and you want to see your child as often as possible, cross these centers off your list.

Some centers are run by a board of parents. If this is true for a center you are considering, attend one of their meetings. They should be able to answer all of your questions.

It is important when you visit a center that you spend most of the day in the classroom, as your child would, and not in the office talking to center administrators. If you are bored in the classroom, chances are your child will be, too.

Day care centers can provide educational services to children by teaching them to read, write, use arithmetic, and develop their talents; or centers may provide little more than babysitting services. Be very suspicious of any center with a television set! It can be a valid educational tool, but your child might end up in front of it all day. If you see a TV at a center, ask why

it's there and how it's used.

While you are at a center, observe its cleanliness. Also, check for adequate heating and air conditioning. The offices may be heated and air conditioned, but the classrooms may not be.

You should be able to select a day care facility, not settle for one. The more information you have, the better your decision can be. For more information on day care centers and other child care alternatives, refer to:

Craig, Coelen, Frederic Glantz, and Daniel Calore. *Day Care Centers in the U.S.* Cambridge, Massachusetts: Abt Books, 1979.

Boston Women's Health Book Collective. *Ourselves and Our Children.* New York: Random House, 1978.

Breithart, Vicki. *The Day Care Book.* New York: Knopf, 1974.

Collins, Alice H. and Eunice L. Watson. *Family Day Care: A Practical Guide for Parents, Caregivers and Professionals.* Boston: Beacon Press, 1976.

Keyserling, Mary Dublin. *Windows on Day Care: A Report Based on Findings of the National Council of Jewish Women.* 1972.

Steinfels, Margaret O'Brien. *Who's Minding the Children: The History and Politics of Day Care in America.* New York: Simon and Schuster, 1973.

¹ "Child Care Food Program: Better Management Will Yield Better Nutrition and Fiscal Integrity," (CED-80-91, June 6, 1980).

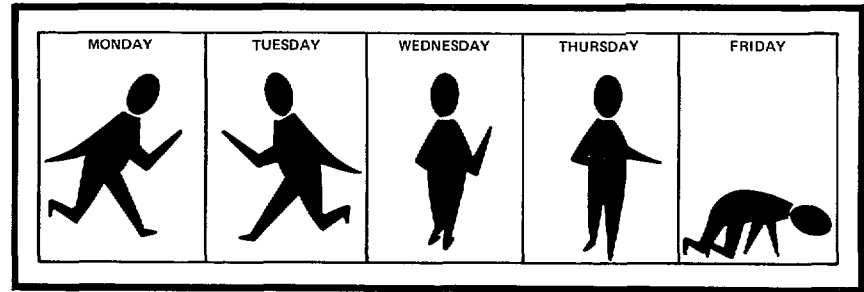
² Craig, Coelen, Frederick Glantz, and Daniel Calore *Day Care Centers in the U.S.* (Cambridge, Mass.: Abt Books, 1979), p. 58.

³ Lynn Langway, "The Superwoman Squeeze," *Newsweek*, May 19, 1980, p. 72.

⁴ *Federal Register*, Vol. XLV, No 55, Mar. 19, 1980, pp. 17870-17885.



A Week's Worth



Beryce W. MacLennan

Dr. MacLennan is senior mental health adviser in the Human Resources Division. She has a B.Sc., Hons from the London School of Economics and a Ph.D. in social and clinical psychology from London University. She is a specialist in community mental health, substance abuse, and in youth problems. She has directed service and training demonstrations in New York City and at Howard University, Washington, D.C.; managed an Applied Research Center at NIMH, and a mental health region for the State of Massachusetts. She is a Fellow of the American Psychological Association, the American Group Psychotherapy Association, and the American Orthopsychiatric Association.

Monday

Monday morning found me in my office at the GAO health sites in Rockville. I had planned to accompany Murray Grant, GAO's chief medical advisor, to a meeting with auditors from our Social Security Administration site and the San Francisco regional office to discuss the delivery of health and mental health services to refugees. However, I received an urgent call on Friday, asking me to provide background information for a briefing on the Hill, and this caused a change in my plans. I spent most of the day investigating the role of work on offender adjustment in and after prison. I called experts across the country and talked with agency officials who could give me their points of view, and I checked references in the library. The result was a summary of my findings dictated over the phone in the late afternoon.

The effect of work on offenders may seem outside the domain of a mental health program specialist. This is not so—mental health professionals are concerned not only with the care and treatment of the mentally ill, but also with the prevention of mental health problems. This is attempted through family life and stress management training which will help people get along well with others and cope with the inevitable strains and crises of everyday life, and through the creation of psychological environments in which people can function productively. Prevention of mental illness, of course, also includes research for new cures, the provision of social and economic supports for those who are chronically handicapped, and the early identification

and treatment of minor problems which can become serious if neglected. All these approaches parallel similar activities concerned with physical health.

At the end of the day I went for my evening swim in our community pool and spent some time with friends before cooking dinner.

Tuesday

Went through my in-box to see what required immediate action and what could be put aside for later reading.

As GAO's senior mental health program specialist, I try to keep informed on all the major mental health issues of the day, and I spend considerable time reading the news, special reports, and the *Congressional Record*. I also try, on a regular basis, to meet with executive, professional, and citizen groups who have an interest in mental health, and I attend many conferences and training programs.

I try to maintain a two-way flow of information across the divisions and offices of GAO. However, I do not have any formal coordinating responsibility. Consequently, communication has to be achieved through personal contacts to make sure that others know who I am and what I do. If auditors and managers get together with specialists when work is proposed, they can best benefit from the latter's expertise and prevent occasional embarrassment to the agency. The information generated by the audits is also very useful and important for the specialist because this adds to our knowledge of what is really out there.

Naturally, much of my work is within HRD, to which I am attached.

However, over the 4 years I have worked at GAO, I have consulted with most of the other divisions and offices: CED, GGD, ID, FPCD, PSAD, PAD, and with the EEO, personnel, counseling, and training offices.

Today, the in-box contained several House and Senate bills which would affect the delivery and funding of mental health services, a draft report from OTA requesting comment, and a note that proposals for HRD's health plan had to be sent downtown by the end of the week.

I had already discussed, with GAO's Alcohol, Drug Abuse and Mental Health Administration's (ADAMHA) group leader, Bill Gadsby, and supervisory auditor, Bill Schechterly, what the major priorities in HRD's health plan would be for the next year. However, I was also interested in suggesting some possible lines of effort for other health sites. Many of the Veterans Administration programs serve veterans with psychiatric problems, and many people with mental health problems go to general health providers and clinics for treatment. Much of the financing for mental health resources is appropriated through the social security titles, so most health sites may work on mental health issues. Consequently, I spent most of today drafting a memorandum on my suggestions.

I went to lunch with Sarah Kestenbaum, a member of Representative Waxman's health staff. She and I worked together in the 1960's when we were developing the New Careers Program for human service aide training at Howard University and Georgetown. This was one of the early paraprofessional programs which we started as a way to help troubled young people get a new start in life. It was amazing how quickly many of them changed in the program and became interested in helping others. This was the first program which formally recognized the need for the development of new entry positions and career ladders for these aides and for the creation of parallel opportunities for continuing education and training. Our demonstrations stimulated the New Careers legislation.

I had to be sure to get home by 5:30 this evening for I was meeting

David, a psychology intern, for the first time to discuss how we would work together. Each year, I supervise one student from George Washington University Medical Center. This helps me keep up-to-date with current practice in hospital inpatient and outpatient units, and the problems encountered in service organizations in the city.

Wednesday

Provided consultation to our Health Services Administration (HSA) auditors on a review of services to parents whose children had died from Sudden Infant Death Syndrome (SIDS). This review has made me conscious again of how important it is that all health providers are sensitive to the emotional reactions of patients and relatives when faced with illness or death.

The galley proofs arrived of a paper on "The Use of Paraprofessionals in Mental Health Services." I had presented this as part of an institute given for members of the Congress and their staffs. The employment of paraprofessionals has increased greatly in the last 20 years, but there are many issues related to their training, credentialing, and reimbursement which require further study. A new journal, "Paraprofessionals," had accepted the paper for publication, and I had also been invited to be on its editorial board.

Carol Cadori called to let me know of a visit she and Federal Personnel and Compensation Division auditors had made to the Hill, and to report interest in private industries' experiences with employee assistance programs and mental health insurance benefits and their implications for the public sector. She asked me to send her any information I had.

We maintain a small resource collection in the Health Consultants' suite, in which we attempt to assemble the most relevant studies and reports to keep up-to-date on standards, regulations, and legislation relating to the field of health and mental health. Our secretary, Trish Hoffman, is invaluable in helping us keep this current.

Betty Crowley, legislative staff member at the National Mental Health Association, also called to discuss a point in the new House and Senate Mental Health Systems

bills and we made an appointment to lunch together.

I shopped for groceries on the way home from work and later watched the first part of Lord Mountbatten's life on television. This brought back many memories for me of my early life in Scotland and of relatives who had served with Mountbatten in India.

Thursday

A draft report of the "Review of Mental Health in the Jails," arrived for comment. I have worked closely over the last 3 years with members of the General Government Division's corrections audit site, and teams from Detroit and other regional offices. I have assisted in reviewing literature, making contacts with experts, clarifying the responsibilities of ADAMHA for the mental health of offenders, and visiting a number of prisons and jails with the auditors. At the facilities, I reviewed records, talked with officials and offenders, and evaluated the programs. Several reports have been issued, and Frank Reynolds and I have participated in professional meetings of the American Medical and American Psychological Associations, reporting our findings. Each audit has opened further issues and I expect to continue my work with GGD. After I read the draft, I discussed possible comments with Frank Ackley, who had been supervisory auditor for ADAMHA for the last several years, and has just moved to GAO's Food and Drug Administration audit site.

I read through some of the latest summaries on proposed health legislation and found a section in the *Congressional Record* which alleged that Agency for International Development health programs had been detrimental to women's health in some African and Middle East countries because of the failure to recognize that health services to men and women are delivered separately, and that male health providers cannot examine or treat women. A similar problem was found some years ago in our agricultural aid because we assumed that men were the farmers. Of course, in many developing countries, women take a primary role in farming. I sent a copy of the congressional report to Ed Eads who is responsible for economic development in GAO's In-

ational Division.

Tonight, as I have just been selected Vice-President for Compliance in FEW (Federally Employed Women, Inc.), I had to prepare compliance goals for this next year. FEW is the major association of women employed in the Federal Government and was formed 12 years ago to improve the status of women in Government and to help them advance in their careers. As Vice-President, Compliance, I am responsible for developing and maintaining a guidance network in our FEW chapters and regions which can assist women who have problems with personnel actions; need advice on their careers; or believe that they have been discriminated against. Last year, I personally dealt with over 50 requests for assistance. Compliance in FEW also means assisting regions to work with agency heads regarding their affirmative action plans, and advising our national executive on legislation and regulations affecting women in Government. Last year we undertook several special studies including the effect of contracting out of Federal services on women in the Government and sexual harassment experienced by FEW members. FEW was required to testify on both these matters before the House Post Office and Civil Service Committee. I also sent a subpaper on "Contracting Out of Federal Employee Health Services" to program managers in PSAD and FPCD.

Friday

Left a note for my housekeeper that a repairman was coming to fix the dishwasher.

I then joined Bernie Ungar from our HSA site in a consultation with Brian Keenan of the Institute of Program Evaluation. We discussed strategy for studying the effect of restrictive zoning laws on the deinstitutionalization of the mentally disabled. The development of a range of protected and semiprotected residential settings and accompanying services is essential if chronically handicapped people are to live in the most normal manner in the community. Zoning may be one of the barriers which keeps patients in hospitals longer than necessary.

As I was in the same building, I dropped in on Carol Shute, a

member of our resource development team in HRD, to give her my files of HRD's human relations committee. I had chaired our planning committee for the follow-on programs of the Functional Racism Course. Our committee had concentrated on input into GAO's interpersonal communications and counseling course, and had also set out recommendations for individual career planning in HRD and for recruitment and promotions policies.

Took the opportunity to go to lunch at Fort McNair with our new FEW President. It is very pleasant in the dining room there and parking is easy.

After lunch I went over to the Justice Department Library. There is growing interest in the problem of violence in prisons and a few weeks ago I had attended a work-

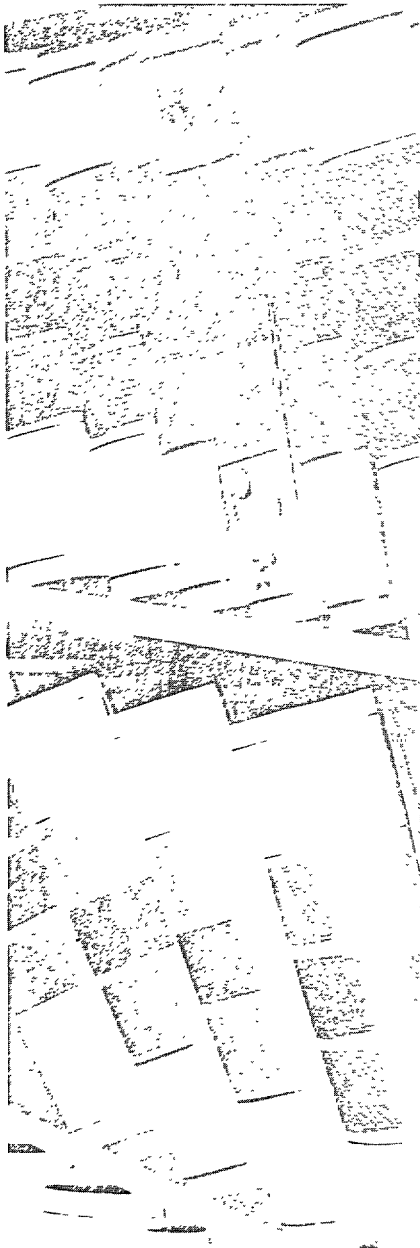
shop on this subject. Both the way in which the prison environment is structured and the training of correctional personnel is thought to have an effect on the incidence of violence. I have been preparing background papers on these issues.

Tonight I have to go to the airport to pick up my niece and nephew from Britain. They are spending 2 years in Alabama where she has a research fellowship for the study of insecticides and he is working as a consultant to a supermarket chain, combining human relations and computer programming in improving management decisions. They will spend a weekend with us visiting some of the museums in Washington and sailing on the Patuxent on Sunday.

Legislative Developments



Judith Hatter



Energy Security Act

On June 19, the conferees submitted a 321-page substitute agreement for the Energy Security Act (H. Rept. No. 96-1104). The legislation contains eight titles, as follows: Title I—Synthetic Fuel; Title II—Biomass Energy and Alcohol Fuels; Title III—Energy Targets; Title IV—Renewable Energy Initiatives; Title V—Solar Energy and Energy Conservation; Title VI—Geothermal Energy; Title VII—Acid Precipitation Program and Carbon Dioxide Study; and Title VIII—Strategic Petroleum Reserve.

Part B of Title I of the legislation creates the United States Synthetic Fuels Corporation. The GAO is authorized to conduct audits of the accounts of the Corporation and report to the Congress, as deemed necessary by the Comptroller General or requested by the Congress, not less than every 3 years.

The Corporation is required to have an officer with the title Inspector General. In carrying out duties and responsibilities, the Inspector General is to give particular regard to the activities of the Comptroller General in relation to the Corporation, with a view toward avoiding duplication and ensuring effective coordination and cooperation.

Title I, Part B, Subtitle E, pertaining to Corporation construction and contractor operation, provides GAO access to pertinent contractor records for purposes of audit. As the conferees explain, Subtitle G authorizes the Attorney General to sue the Corporation or any other person to prevent acts of omission or commission in violation of the legislation. The section creates a public cause of action, maintainable by the Attorney General or the Comptroller General, to enforce the duties and responsibilities imposed by the legislation.

Title V, popularly called the Solar Energy and Energy Conservation Act of 1980, establishes the Solar Energy and Energy Conservation Bank in the Department of Housing and Urban Development. GAO is to audit the financial transactions of the Bank not later than 2 years after

enactment and subsequently at 3 year intervals. The Bank will cease to exist after September 30, 1987.

A new Part 5 pertaining to residential energy efficiency programs is added to the National Energy Conservation Policy Act (Public Law 95-619, November 9, 1978, 92 Stat. 3206). Each State and local government whose application for a residential energy efficiency plan is approved and each utility and person entering into a contract under the plan is required to provide GAO access to records for purposes of audit.

With House agreement to the conference report, the measure was cleared for Presidential action on June 26. The President signed the measure into law on June 30. (Public Law 96-294, 94 Stat. 611-779).

Federal Trade Commission Rules

Public Law 96-252, May 28, 1980, 94 Stat. 374, the Federal Trade Commission Improvements Act of 1980, delineates at section 21 a procedure for congressional review of final rules promulgated by the Federal Trade Commission and procedures designed to expedite judicial review of the constitutionality of the legislative veto.

Before the end of fiscal year 1982, the Comptroller General is required to prepare a report to the Congress which examines the review of Commission rules including, among other things, an analysis of any effect which the provisions of this section have had upon the decision-making and rulemaking processes of the Commission.

The President of the United States had the following comments when he signed the legislation into law:

Other aspects of the legislation are less satisfactory. Section 21 provides for a two-house congressional veto of FTC final rules. This provision is both unwise and unconstitutional. I am signing this bill despite the Congressional veto provision, because the very existence of this

*agency is at stake. Under the bill, a suit to test the legislative veto provision can be expedited, and I look forward to such a court challenge.*¹

Nuclear Regulatory Commission Authorization

In their deliberations on the Nuclear Regulatory Commission Authorization bill (S. 562) the conferees, with respect to section 203 concerning the extension of criminal penalties, have agreed to direct the Comptroller General to study the need for extending the authority provided to the operation of a commercial nuclear power plant. In particular, the study is to examine recent allegations about leakage rate testing and reporting prior to the accident at Three Mile Island, and about Arkansas Nuclear Unit One at Russellville, Arkansas. (Public Law 96-295, June 30, 1980).

Patent Rights

The University and Small Business Patent Procedure Act (S. 414) passed the Senate with the addition of a new chapter 17—Patent Rights in Inventions Made with Federal Assistance—to Title 35 of the United States Code.

Section 202 requires that the Comptroller General is to advise the head of the agency if he believes any pattern of determinations by a Federal agency is contrary to the policy and objectives of the chapter or that an agency's policies or practices are otherwise not in conformance with the chapter. Within 120 days, the head of the agency must indicate what action the agency has taken or plans to take with respect to the matters raised.

At least once a year, the Comptroller General is to transmit a report to the Committee on Judiciary of the House of Representatives and the Senate on the manner in which the chapter is being implemented by the agencies and on other appropriate aspects of the Government patent policies and practices with respect to federally-funded inventions.

Consulting Abuses

Senator David Pryor of Arkansas and Congressman Herbert Harris of

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Virginia have introduced legislation to rectify certain problems delineated in the Comptroller General's report, "Government Earns Low Marks on Proper Use of Consultants" (FPCD-80-48, June 5, 1980), which summarizes GAO audit reports during the last 20 years bearing on the issue of Government's use of consultants. The legislation would, among other things, clarify the authority for appointment and compensation of experts and consultants, and provide statutory guidelines concerning the award of contracts for the procurement of goods and services from consultants and contractors (H.R. 7674 and S. 2880).

Senator Daniel K. Inouye of Hawaii has also introduced legislation pertaining to consultants. His measure, S. 2788, the Federal Reports Authorship Disclosure Act of 1980, requires the disclosure of information relating to reports prepared for executive agencies by experts and consultants. Documents containing certain information described in the legislation are to be provided GAO to maintain for a period of 5 years.

Rural Transportation

On June 25, S. 2720, Federal Public Transportation Act of 1980, was amended and passed the Senate. Title II—Federal-Aid Highway Amendments of 1980, contains a requirement that GAO undertake a study of the transportation needs of rural areas. The law details six areas of interest that should be included, but does not limit GAO to those areas alone.

Testimony by GAO Officials

From January through June 30 GAO officials appeared 95 times before Committees and Subcommittees of the Congress to give testimony on a variety of subjects.

New Public Laws

Since January 3, 109 public bills have been enacted into law. Of these 109, 38 or 35% were signed by the President in June.

¹ Weekly Compilation of Presidential Documents, Vol. 16, No. 22, pp. 982-983.



Josephine M. Clark



Reflections

Since *The Staff Bulletin* stopped appearing in March 1960 and *The GAO Review* was not published until the winter of 1966, here are several interesting items taken from the 1960 Fall issues of *The Watchdog*. Twenty years ago:

- A revised Comprehensive Audit Manual was distributed to technical staff members in the accounting and auditing divisions in GAO. A picture of the late E. H. Morse, Jr., who developed the first Comprehensive Audit Manual and also was responsible for the revision, is shown with other members checking the manual before distribution.
- The "Washington Daily News" wrote about the Comptroller General and the GAO riding hard on departments and agencies to guard the taxpayers' money.

And ten years ago, in the Fall 1970 issue of *The GAO Review*, you'll find that:

- Melvin F. Bergartt, deputy associate director in the International Division, was appointed assistant manager of the New Delhi Office, European Branch, in June 1970.
- Wilbur D. Campbell, deputy director, Financial and General Management Studies Division, was designated as assistant director in the former Civil Division, June 1970.
- George L. Egan, Jr., associate director, Financial and General Management Studies Division, was designated assistant regional manager of the Washington regional office, June 1970.
- Louis Lucas, assistant regional manager of the Boston regional office, was appointed to that position in June 1970.
- John D. Redell, liaison representative for the International Communication Agency in the International Division, was designated assistant di-

rector in the International Division, June 1970.

- Daniel F. Stanton, deputy director, General Government Division, was appointed assistant director in the Civil Division, June 1970.
- Comptroller General Staats announced plans for commemorating the 50th anniversary of the General Accounting Office. Plans included lectures by prominent speakers, a special edition of *The GAO Review* devoted to the history, evolution, and personalities of GAO, and other features. Mr. Staats stated:

Special recognition for GAO's 50th anniversary is very much in order. The GAO has contributed immeasurably over half a century to economy and effective management in the Federal Government, and has increasingly provided assistance to the Congress in carrying out its legislative duties. It is a suitable time to reassess how the GAO can become even more effective in the years ahead. The GAO—like any other organization—cannot rest on its laurels.

- GAO published a booklet entitled "Frequently Asked Questions About Accrual Accounting in the Federal Government." Conversion of the accounting methods by the Federal agencies had been a slow process even though Congress passed a law in 1956 (P.L. 863) directing each executive agency to maintain its accounts on the accrual basis, and the President's Commission on Budget Concepts in 1967 recommended stating the national budget results on the basis of accrual revenues and expenditures. The booklet was designed to provide an appreciation and understanding of the merits of accrual accounting for the Federal Government.

- Notes were published on the 19th annual symposium of the Federal Government Accountants Association (now the Association of Government Accountants) held in Miami Beach in June 1970. They included a picture of the late E.H. Morse, Jr., former Assistant Comptroller General, accepting the gavel as new President of FGAA from outgoing President Bernard B. Lynn.
- GAO issued its report on weak enforcement of Federal sanitation standards of meat plants by the Department of Agriculture. GAO auditors found disturbing evidence of unsanitary standards at 48 meat plants they inspected. Some of the reactions were not favorable—which prompted a letter from the GAO Information Officer, who stated among other things:

...I am in a position to assure you that the report is fully informative being based upon facts, and as objective in its statements as is humanly possible; that it not only was not "rigged" but was based on evidence that came from Consumer and Marketing Service records; and that the survey

was conducted by senior, experienced GAO auditors who, though not sanitary engineers, nevertheless know a rat when they see one, and similar indications of visible unsanitary conditions.

- A picture was printed of A. T. Samuelson, former Assistant Comptroller General, congratulating Civil Division staff members elected to serve as officers of the Washington Chapter of the National Association of Accountants for the 1970-71 term. In addition to Mr. Samuelson, those pictured were: Jack L. Mertz, Max A. Neuwirth, Donald M. Mutzbaugh, Harold L. Stugart, Stephen J. Varholy.
- New laws passed during the summer of 1970 and mentioned under "Hearings and Legislation" were:

Public Law 91-379—establishing the Cost Accounting Standards Board, with the Comptroller General as Chairman.

Public Law 91-258—creating the Airport and Airway Development Act of 1970.

Public Law 91-351—Emergency Home Finance Act of 1970.

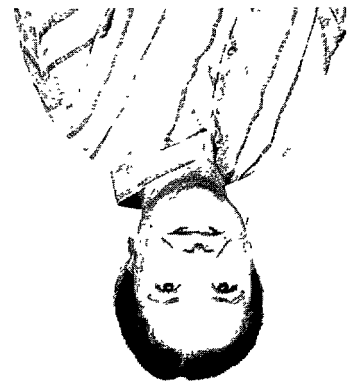
Public Law 91-375—Postal Reorganization Act.

- Comptroller General Staats testified on June 4, 1970, before the Subcommittee on Government Activities of the House Committee on Government Operations on H.R. 16443, dealing with the Government's procurement of architect-engineers services.
- Mr. Staats also testified on July 1, 1970, before the Subcommittee on Economy in Government of the Joint Economic Committee on automatic data processing equipment used by the Government.
- Other hearings at which GAO members testified were on these subjects: international organizations audit; District of Columbia accounting procedure; Smithsonian Institution; and New Jersey graduated work incentive experiment.
- Twenty-five years ago, *The Watchdog* published an article about the winners of the GAO Softball League. One of our recent retirees, Jim Duff, just happened to have a picture of the champions, which is reproduced here.



"Comets," GAO Softball League Champions. Front row, l. to r.: Don Pullen, John Abbadessa, Nick Bournais (manager), Jim Duff, Ted Hayes. Back row: Ted Motorney, Abe Shank, Joe Palau, Marguerite Pollio (president, GAO Employees Association), Ernie Wade, Harry Bandemer, Mike Grasso, Ben Wiesman. Bill Edwards and Forrest Brinkley were not present.

GAO Staff Changes



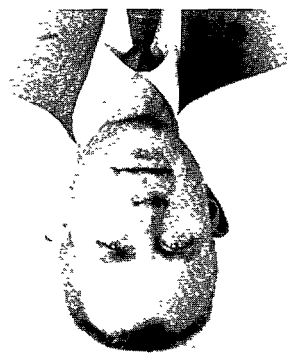
Eleanor Chelmsky

Eleanor Chelmsky was designated director of the newly established Institute for Program Evaluation effective June 9, 1980. Mrs. Chelmsky will direct the Institute toward its goals of assuring that GAO uses the best available methodology in its work, implementing a program to upgrade the skills of GAO staff, and assuring the availability of needed skills.

From 1966 to 1970 Mrs. Chelmsky was an economic analyst for the United States Mission to NATO. Since 1970, Mrs. Chelmsky was employed by the MITRE Corporation, most recently as Associate Technical Director and Director of the Office of Program Evaluation, where she directed MITRE's work in planning and policy analysis, criminal justice, program evaluation, and research management.

Mrs. Chelmsky has acted as a consultant to GAO in evaluation and research policy, as expert witness before the Senate Human Resources Committee on the use of evaluative research in the oversight function, as panelist on the Workshop on Congressional Oversight and Investigations, and as consultant to the National Conference of State Legislatures. She also serves as a Member of the Editorial Review Board for the Sage Research Series in Evaluation and its President-Elect of the Evaluation Research Society.

Mrs. Chelmsky received a B.A. degree in economics from the University of Maryland and did graduate study there in political science. She was a Fulbright Scholar in Paris.



Frank P. Chemistry

Frank P. Chemistry, associate director in the Procurement and Systems Acquisition Division, retired effective June 27, 1980. He joined GAO in 1980. Mr. Chemistry was assigned to the former Division of Audits. He served in the U.S. Navy from 1956 to 1958. Upon his return to GAO, he was assigned to the former Civil Department of Energy, and the Department of Energy, and the Procurement and Systems Acquisition Division.

Mr. Chemistry served in the U.S. Army Air Corps from 1943 to 1945. He graduated from St. John's University in 1946 and received a graduate degree in international affairs from George Washington University in 1971. He also attended the National War College.

After 7 years in public accounting, Mr. Chemistry joined GAO's Philadelphia regional office in February 1953. He transferred to the Defense Division in Washington, D.C. in 1956, and was designated an assistant director of the Defense Accounting and Auditing Division in 1965. In September 1972 he was appointed associate director in the Procurement and Systems Acquisition Division.

Mr. Chemistry is a CPA (District of Columbia), a member of the American Institute of CPAs, and the District of Columbia Institute of CPAs.



Frank C. Conahan

Frank C. Conahan was designated deputy director of the International Division, effective June 16, 1980. Mr. Conahan joined GAO in 1955 and was assigned to the former Division of Audits. He served in the U.S. Navy from 1956 to 1958. Upon his return to GAO, he was assigned to the former Civil Department of Energy, and the Department of Energy, and the Procurement and Systems Acquisition Division.

Mr. Conahan is a member of the American Accounting Association, the American Society for Public Administration, the United Nations Association of the United States of America, and the Institute of Certified Professional Managers. He received the GAO Meritorious Service Award in 1963, the GAO Career Development Award in 1968, the GAO Special Educational Award in 1973, and the GAO Distinguished Service Award in 1979.



Dennis J. Dugan

Dennis J. Dugan was named deputy director of the Program Analysis Division on June 6, 1980. Previously, Dr. Dugan was GAO's chief economist and senior associate director of the Program Analysis Division. He is also Adjunct Professor of Public Administration at American University in Washington, D.C.

Dr. Dugan was formerly Chairman of the Department of Economics at the University of Notre Dame. He joined the faculty at the University of Notre Dame in 1966, and had been Chairman 3½ years before coming to GAO in 1974. He was also Director of Research and Data Analysis on the Gary Income Maintenance Experiment from 1971-1973.

Dr. Dugan, a Phi Beta Kappa, holds a B.S. degree in mathematics from Creighton University and a Ph.D. in economics from Brown University, where he was a Woodrow Wilson Fellow and a Ford Fellow. In 1968 and 1969, Dr. Dugan was an Economic Policy Fellow at the Brookings Institution in Washington, D.C. He has published numerous articles in the economics literature and has written three books. Dr. Dugan received Meritorious Service Awards from PAD in 1977, 1978, and 1979, and the GAO Meritorious Service Award in 1975.



James A. Duff

James A. Duff, senior level associate director, International Division, retired on June 28, 1980 after 32 years of Government service, 29 with GAO.

Mr. Duff served in the United States Navy from 1943 to 1946. He attended Fond du Lac College in Wisconsin and holds bachelor and master's degrees in commercial science from Benjamin Franklin University, Washington, D.C. He is a CPA (District of Columbia), and a member of the American Institute of Certified Public Accountants.

Mr. Duff was associated with a public accounting firm in the Washington area before joining GAO in 1951. He had diverse assignments in the former Corporation Audit and Defense Divisions before joining the International Division when it was formed in 1963. He also served overseas with GAO in Madrid and Paris from 1956 to 1961. In 1968-69 he attended the Senior Seminar in Foreign Policy at the Foreign Service Institute of the Department of State. He received numerous awards during his career, including the GAO Meritorious and Distinguished Service Awards. At the time of his retirement, Mr. Duff was responsible for ID's work in the area of Security and International Relations.



Donald L. Eirich

Donald L. Eirich, associate director in charge of the Communications-Information Management Subdivision, Logistics and Communications Division, retired June 28, 1980. The group he headed was responsible for Government-wide reviews of communications systems, operational ADP systems, and Federal information management activities.

Previously, he was an assistant director in the Defense Division of GAO until its reorganization in April 1972. He joined GAO in August 1957, after serving in various accounting capacities for a number of years in public accounting and in private industry. He served in the U.S. Army from 1941 to 1946 and from 1951 to 1952; he was awarded the Bronze Star Medal in 1945.

Mr. Eirich is a CPA (Maryland), and a member of the American Institute of CPAs, the Association of Government Accountants, and the Society for Management Information Systems. He has received the GAO Meritorious Service Award.

Mr. Eirich graduated with honors from the Johns Hopkins University with a B.S. degree in business and economics, and also from the Baltimore College of Commerce with a degree in accounting. He has completed graduate level work at the University of Pittsburgh; the Wharton School, University of Pennsylvania; and George Washington University.



John F. Flynn

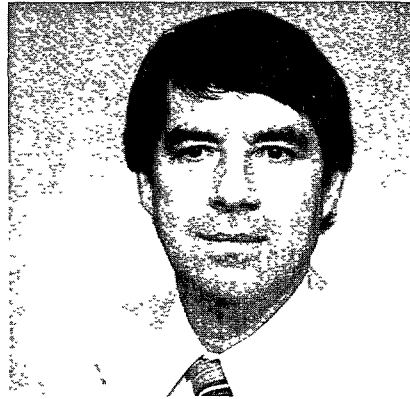
John F. Flynn, senior associate director (General Procurement Group) of the Procurement and Systems Acquisition Division, retired June 3, 1980, after 30 years of Government service. Mr. Flynn served 28 years at GAO.

As senior associate director in the General Procurement Group, Flynn led projects covering all actions by Federal agencies involved in buying or contracting for needed goods and services. He also served as associate director of the Major Acquisition Subdivision of the Procurement and Systems Acquisition Division and assistant director in the Defense Division.

He joined GAO in 1952 after serving in various accounting capacities for a number of years in public accounting and in private industry.

Mr. Flynn served in the U.S. Navy from 1943 to 1945 as a naval pilot. He graduated from Bentley School of Accounting and was graduated cum laude from Northeastern University with a B.B.A. degree in June 1952. He graduated from the National War College in June 1973 and received an M.S. degree in international affairs from George Washington University. He attended the Senior Executive Education Program at the Federal Executive Institute in 1978.

Mr. Flynn is a CPA (Massachusetts) and a member of the American Institute of Certified Public Accountants, and the Association of Government Accountants.



James L. Howard

James L. Howard was designated associate director, Energy and Minerals Division, effective June 15, 1980. In this capacity, he is responsible for leading GAO's reviews of the nuclear fusion and fission programs of the Department of Energy, all activities of the Nuclear Regulatory Commission, and all work relating to management and administration of DOE activities.

Mr. Howard received a B.S. degree in 1964 in business administration from Bloomsburg State College in Bloomsburg, Pennsylvania. He has also attended George Washington University for specialized courses. In 1977, he attended the Executive Development Program at Dartmouth College. He served in the U.S. Navy from 1956 to 1960.

Since joining GAO in 1964, Mr. Howard has had diverse assignments, including responsibilities for audits at the Federal Aviation Administration, U.S. Forest Service, Federal Highway Administration, and the Nuclear Regulatory Commission. He also served as assistant to the director for planning of the then Resource and Economic Development Division.

Mr. Howard received outstanding performance awards in 1975 and 1977, the EMD Division Director's Award in 1978, and EMD's Certificate of Merit in 1979.



Robert H. Hunter, Jr.

Robert H. Hunter was designated assistant general counsel, General Government Matters, Office of General Counsel, June 4, 1980.

In his new position, Mr. Hunter will be responsible for matters concerning the availability and obligation of appropriations, the accountability of fiscal officers, and the interpretation of a wide range of statutes and regulations affecting Government activity. Covered also are problems associated with Federal grants-in-aid and Government corporations.

Mr. Hunter was appointed as an attorney in the General Accounting Office in 1965 and assigned to the Procurement Law area. He attended the Judge Advocate General's School, Procurement Law Division, in 1966. In 1972 he was designated Senior Attorney and has received, through his work as a member of the Special Studies and Analysis group, numerous commendations from other divisions in GAO for assistance he has provided.

Mr. Hunter received his B.S.S. degree from Georgetown University in 1958 and his LL.B. degree from Georgetown Law Center in 1964. He is a member of the bar of the District of Columbia.

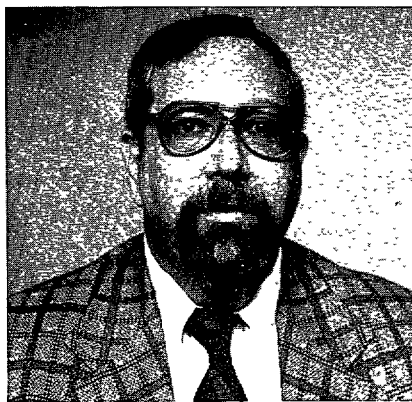


Charles D. Hylander

Charles D. Hylander was designated director, Office of Policy, on June 16, 1980.

Mr. Hylander joined the staff of the Corporation Audits Division of GAO in 1951 after several years in public accounting and service in the Army Air Force. When the Division of Audits was created in 1952, he was assigned to that division. Later he served in the European Branch Office (Paris), the former Civil Division and Defense Division, and then he joined the Far East Branch in Tokyo in 1959. In 1962, he served with the former Accounting and Auditing Policy Staff until he transferred in 1963 to the International Division. In 1965, he was designated deputy director, International Division.

Mr. Hylander received an A.B. degree from Harvard and an M.B.A. from Columbia University. He attended the Advanced Management Program, Harvard School of Business, in 1967, and the Senior Seminar in Foreign Policy, Foreign Service Institute, in 1974. He is a CPA and a member of several professional organizations. He has received the GAO Meritorious and Career Development Awards.



Morton A. Myers

Morton A. Myers was designated director, Program Analysis Division, June 6, 1980.

Mr. Myers received a B.S. degree in accounting from Quinnipiac College in 1961. After joining GAO in the same year, he was on active duty in the U.S. Army until February 1962. He attended the George Washington University Graduate School of Business, and in 1969-70 was a graduate fellow at the University of California under the Federal Government's educational program in systems analysis.

Previous GAO positions held by Mr. Myers include assistant director, Office of Policy and Special Studies; assistant director, Civil Division; assistant director, Manpower and Welfare Division; deputy director, Procurement and Systems Acquisition Division; and deputy director, Program Analysis Division.

Mr. Myers is a member of the American Association for the Advancement of Science, the National Association of Accountants, the Association of Government Accountants, and the Phi Theta Kappa National Honorary Society. In 1970, he received the GAO Special Educational Award, and in 1972 and 1973, the GAO Meritorious Service Awards.

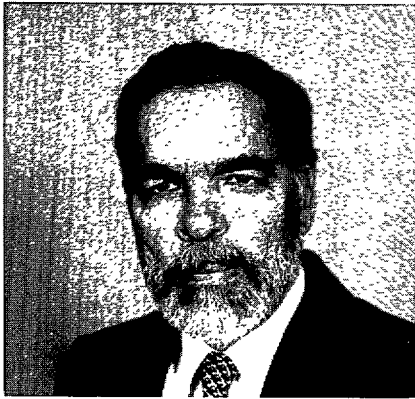


Allan I. Mendelowitz

Allan I. Mendelowitz was designated associate director in the Program Analysis Division, effective June 6, 1980. He is responsible for directing economics studies and serves as the contact point in GAO for economic analysis and issues.

Mr. Mendelowitz received his B.A. degree in economics from Columbia University in 1966. He completed his graduate training in economics at Northwestern University and received an M.A. in 1969 and a Ph.D. in 1971. Following graduate school, Mr. Mendelowitz served on the faculty of Rutgers University and was a Brookings Institution Economic Policy Fellow.

Mr. Mendelowitz joined GAO in 1976 as an assistant director in the Program Analysis Division in charge of Federal regulatory activities. In 1978, his responsibilities were expanded to cover the analyses of regional economic problems in addition to his economic regulation responsibilities. In 1979 he was promoted to senior economics specialist.



David P. Sorando

David P. Sorando, regional manager, Washington regional office, has been designated regional manager, Boston regional office.

In Boston, Mr. Sorando is serving in his fourth regional office. He began his GAO career in the New York regional office in 1953, and then moved to Syracuse in 1960, where he managed a suboffice until 1964. He then transferred to the Cincinnati regional office and served as regional manager until 1972 when he was appointed deputy director of GAO's Manpower and Welfare Division (now Human Resources Division) in Washington. He later served as deputy director of the Federal Personnel and Compensation Division in its formative years before assuming his current duties in September 1975.

Following tours of military duty (WW II and Korean War), Mr. Sorando graduated from Fordham University in New York and later attended advanced management programs at the Business School, Harvard (1962) and at the Federal Executive Institute (1972). He has served as chapter, regional, and national officer in several organizations and has been cited by GAO and others for his work. His awards include a GAO Meritorious Service Award in 1975 and GAO's highest award, the Comptroller General's Award, in 1976.

Other Staff Changes

NEW ASSISTANT REGIONAL MANAGERS

Chicago

*Stewart M. Herman

Philadelphia

Joseph F. Daly

San Francisco

William B. Agnew

Seattle

Jack Woosley

NEW ATTORNEY ADVISER GENERAL

Office of General Counsel

Richard K. Parsons

NEW PROGRAM MANAGER

Joint Financial Management Improvement Program

Doris A. Chew

NEW SUPERVISORY MANAGEMENT ANALYST

Energy and Minerals Division

Edward A. Kratzer

Financial and General Management Studies Division

Opal F. Butcher

International Division

Ronald A. Kushner

Richard J. Price

Logistics and Communications Division

John M. Harlan, Jr.

Kenneth J. Hoeth

David R. Martin

Procurement and Systems Acquisition Division

John J. Desopo

REASSIGNMENTS

Energy and Minerals Division

John W. Harman

Office of Program Planning

Vincent M. DeSanti

* Correction p. 104 of Spring 1980 issue.

RETIREMENTS

Boock, Howard L.	Supervisory Auditor	FOD-Seattle
Chemery, Frank P.	Associate Director	Procurement and Systems Acquisition Division
Cooper, Ernest E.	Supervisory Auditor	Logistics and Communications Division
Cowen, Daniel T.	Supervisory Auditor	FOD-Seattle
Doyle, George D.	Supervisory Auditor	FOD-Denver
Duff, James A.	Associate Director	International Division
Eirich, Donald L.	Associate Director	Logistics and Communications Division
Goedde, Frank E.	Supervisory GAO Auditor	FOD-St. Louis
Groves, Elry M.	Supervisory GAO Auditor	Community and Economic Development Division
Hunt, Aubrey H.	Motor Vehicle Operator	Office of Publishing Services
Levin, Naomi D.	Reports Controller	Procurement and Systems Acquisition Division
Martin, Daniel W.	Supervisory Attorney Advisor	Office of General Counsel
Orear, Cecil C., Jr.	GAO Auditor	FOD-Kansas City
Ryan, Robert J.	Group Director	Financial and General Management Studies Division
Siefring, Paul	Supervisory GAO Auditor	Financial and General Management Studies Division
Vines, Zelda V.	Lead Voucher Examiner	General Services and Controller
Wysong, Earl M., Jr.	GAO Auditor	Financial and General Management Studies Division

New Staff Members

The following new staff members reported for work during the period April 1, 1980, through June 30, 1980.

Office of the General Counsel

McCann, Joseph L.

Department of the
Interior

Community and Economic Develop- ment Division

Bishop, Robert T.

Virginia Commonwealth
University

Bridges, Richard E.

Department of
Transportation

Campbell, William R.

University of Texas

Fletcher, Linda M.

Department of State

Herbert, Stephanie L.

Philadelphia Health
Management Corporation

Isabelle, Douglas M.

Department of the Navy

Itell, Jeffrey

Columbia University

Jones, James R., Jr.

Defense Logistics Agency

Mascia, Janet L.

The Maxwell School

Opis, Scott

Federal Energy Regula-
tory Commission

Psoras, Cynthia L.

Syracuse University

Schnur, Jeffrey N.

Columbia University

Scott, John P.

HUD

Stormer, Beverly

Oxon Hill Senior High

Weiss, Lori A.

George Washington
University

Energy and Minerals Division

Adams, Sebrina I.

HHS

Hoffman, Anne E.

Syracuse University

Koerper, Karl J.

Syracuse University

Rolen, Phoebe A.

Defense Technical Infor-
mation Center

Strain, Patricia L.

Department of the Navy

Willis, Lynda D.

DOE

Federal Personnel and Compensation Division

Bennett, Gloria D.

Prairie View A&M
University

Ferguson, Cheryl A.

George Mason University

Mattos, Patricia A.

North Adams State

Weiser, Winston O.

College

University of Maryland

Financial and General Management Studies Division

Acosta, Vickie L.

M.B. Cene Boutique

Bost, Byard T.

Western Carolina

Horton, Michael E.

University

Congressional Budget
Office

Martin, Warren B.

Federal Maritime Com-
mission

	McAndrew, Charles R. Petit, Glenn F. VanWageningen, Christina E.	U.S. State/ACDA American University American University
General Government Division	Giebolini, Luisa M.	University of Puerto Rico
General Services and Controller	Aijo, Scott P. Barnes, Angela C. Callahan, Brenda J. Chapman, William C., Jr. Council, Lula H. Garrett, Willup Guzman, Nydia I. Jackson, Audrey R. Neals, Shirley A. Niehoff, Claire A. Overdorf, Charles S. Resser, John M. Schara, Ann M. Watkins, Aletha H.	Veterans Administration Department of the Treasury University of Maryland Department of the Treasury GSA Grambling State University University of Puerto Rico Department of Agriculture Veterans Administration HUD Western Carolina University Unemployed Department of the Navy Department of the Army
Human Resources Division	Addison, Peggy A. Borders, Michele L. Hyaeck, Claude B. Hill, Becki S. Jordan, Elizabeth J. Joyce, Darryl W. Maidman, Lynna P. Shealey, Carol A. Valden, Matthew A.	Naval Intelligence Support Center Howard University Unemployed George Washington University George Washington University Howard University The Maxwell School Administrative Office of the Courts Burroughs Corporation
Institute for Program Evaluation	Mauch, Marilyn C.	American Psychological Association
International Division	Aaronson, Susan Albert, Juan F. Boudreau, Richard J. Cooper, William H.	Department of Corrections American University Clary Institute Library of Congress

**Logistics and
Communications
Division**

D'Agostino, Davi M.
Ferrantello, Donna L.
Pate, Dona L.

Phillips, Jeffrey D.
Pross, Mark A.

Behrens, Eugenia M.
Blyden, Karen L.
Gloe, William A.
McComb, Michael J.

O'Daniel, Lloyd G.

Orr, Robert A.

Ritornato, Michelle A.

Shadle, Carole L.
Smith, Darial

Tiburzi, James D.
Tilghman, Cynthia L.

Personnel

Bowser, Samuel S.
Brenner, Susan
Brown, Vickie L.
Griffin, Darlene
Haskins, Janice W.
Henry, Linda P.

Hill, Beverly

Johnson, Jill
Madden, Joyce A.
Nicholson, Landis D.

Poskaitis, Mary M.
Robertson, Elizabeth A.
Strayer, Christina

**Procurement and
Systems Acquisition
Division**

Bright, Donald J.
Crocker, Robert L., Jr.
Curry, Clifton J.

Daubenspeck, Kirk J.
Davis, Terry L.
Fleming, Kathryn D.

Library of Congress
American University
Washington-Lee Savings
& Loan

Congressional Quarterly
Self-Employed

St. Mary's College
Howard University
George Mason University
Department of Weights
and Measures

University of Rhode
Island

Virginia Polytechnic In-
stitute

Dade County School
Board

Capitol Pro Shop, Inc.
Grambling State
University

University of Maryland
George Mason University

Department of the Navy
Department of the Army
George Mason University
HHS

Department of Agriculture
Department of the In-
terior

Potomac Electric Power
Company

W. Bell and Company
Unemployed

Employment Security
Commission

King's College
HHS

Northern Virginia Com-
munity College

GSA
American University
George Washington
University

Department of Labor
Bloomington
Columbia University

	Jasnoff, Zachary L. Smallwood, Frances E.	American University Naval Air Test Center
Program Analysis Division	Fossett, Christine A. Handy, Henry	HUD Veterans Administration
REGIONAL OFFICES		
Atlanta	Buchwalter, Sheryl L. Nobles, James C., Jr. Parks, Octavia V. Webster, Hugh L. Weeks, Larry D.	Olsten Temporary Service Nobles Lawn Care Veterans Administration U.S. Army Audit Agency Department of the Treasury
Boston	Audtin, Gary R. Briggs, Irene L. McCarthy, Sharon A. Szeto, Arthur K.	Delaware State College Boston Public Library Wheelock Lovejoy Metal Source Company Perry-White and Associates
Chicago	Hammond, Gerald G. Johns, Eric D. Miller, Gerald J. Perkins, Bonnie S. Ryczek, William Sullivan, Leo B., Jr. Westpfahl, Jane E.	Writing Sales Veterans Administration International Life In- surance Co. of New York Grant Hospital Department of Public Aid GSA University of Iowa
Cincinnati	Dobbs, Lucion Jr. Chunn, James W. Melvin, William P. Shaller, Morris L. Weigl, Donna Weir, Gwendolyn J. Weis, Lynette M. Yakovac, Michelle A.	Department of Transportation Kraft, Inc. Ohio Distribution Warehouse DISC University of Cincinnati University of Dayton University of Dayton University of Dayton
Dallas	Albers, John H. Clary, John E. Hernandez, Rebecca A. Malpass, Robert D. McCuistion, Donald R. Velte, Carol M.	Manpower American Red Cross Eastfield College Department of Transportation Unemployed Self-Employed

Denver

Bergman, Eric J.	University of Colorado
Chavez, Lillian M.	Unemployed
Cordova, Lucille M.	Community College of Denver
Curtis, Lois J.	Department of the Interior
DeLeon, Lewis D.	Department of the Interior
Galicia, Fidel M.	Department of the Interior
Gruenberg, Sigrid	VISTA
Halter, Arleen L.	University of Colorado
Harriman, Barbara L.	Social Security Administration
Johnson, David M.	Sears
Spencer, Ralph K., III	Department of the Treasury

REGIONAL OFFICES**Detroit**

Connell, Kathleen	Service Organization Consultants
Magoulick, Sara K.	University of Michigan

Kansas City

Costello, Mary A.	Department of Informa- tion and Research
Miller, Dorothy M.	Department of Defense
Nelson, Keith A.	HHS

Los Angeles

Ebert, Kathleen A.	Drug Enforcement Ad- ministration
Miles, Arthur G.	HUD
Schwartz, Keith A.	University of California
Tuggle, N. Jean	Department of Justice
Warkentin, Donald W.	University of California
Wong, Laurena K.F.	Self-Employed

New York

Bell, Joyce E.	Jolpe, Boskey, Lyons
Carrera, John D.	HHS
Castro, Jose L.	Department of the Interior
Coogen, Allen C.	GSA
Cook, Thomas	HHS
Gomez, Ramon	Colegio Universitario del Turabo
Jackson, Ollie C.	HUD

Norfolk

Callis, Allen K.	James Madison University
Clark, Florence L.	Old Dominion University

	Espey, Sharon L. Tan, Aida L. West, Jane B.	University of Virginia Harlem Hospital Center Commonwealth of Virginia Coliseum Lincoln-Mercury
	Williams, Samuel	
Philadelphia	Lee, William E. Miller, Arthur J. Parkin, Kathleen A. Seidman, Sandra S. Shapiro, Beverly Turowski, Wayne J. Wasleski, Marilyn K. Wurster, Robert D.	Touche Ross and Company Roseman, Lipschutz, and Bryan Sears University of Pennsylvania EPA Continental Bank Temple University Reliance Insurance Company
San Francisco	Burns, Marrian F. Colgrovestone, Mary K. Houfek, Carol I. Kasperek, Carol R. Lau, Valerie J. Olivarez, Elizabeth A. Thayer, Anthony E.	East Bay Skills Center HHS Standard Oil Company HHS Defense Contract Audit Agency EEOC Department of Transportation
Seattle	Betts, Daniel F. Lung, Lori D.	DOE Genesee St. Pharmacy
Washington, D.C.	Bonham, Christine E. Bonilla, Noel C. Kelly, Walter, Jr. Lacey, La Jeannia J. Nyang, Elizabeth Pulliam, Mary L. Rogers, William J. Savaides, Madelon B. Schultze, Diana P. Stumpf, David L. Watson, Calvin D. Zilius, John P.	ACTION Howard University Hospital Consolidated Financial System HUD Greenhorne and O'Mara Salisbury State College American University American Hellenic Education Progressive Association Mary Washington College American Management Service HUD Georgetown University

Professional Activities

Office of the Comptroller General

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

The Municipal Finance Officers Association, 74th Annual Conference, "Establishing Governmental Accounting Standards," Phoenix, May 12.

American Society for Public Administration, Wichita Chapter, "The Role of the General Accounting Office," Wichita, May 19.

The Accounting Department of Wichita State University, "White Collar Crime in Government—How We Are Combating It," Wichita, May 19.

Second Seminar of the Senior Government Auditing Agencies, "Auditing in the Americas: What the Future Holds," Mexico City, May 13-16.

American Petroleum Institute Finance and Accounting Annual Conference, "GAO—Its Work in Energy," Colorado Springs, June 9.

American Society of Civil Engineers, Second Conference on Computers in Civil Engineering, "Computers in Civil Engineering in the World of Today and Tomorrow," Baltimore, June 10.

Israel-America Chamber of Commerce, "Role and Functions of the U.S. General Accounting Office," Tel Aviv, Israel, June 26.

The following are recently published articles of the Comptroller General:

"SMR Forum: Improving Industry-Government Cooperation in Policy Making (adapted from an address delivered before the Conference Board in New York City on March 19, 1980)," *Sloan Management Review*, Spring 1980, Vol. 21, No. 3.

A synopsis of a speech given before the AGA on "The GAO: How Its Activities Affect Federal Regulatory Policy," *American Gas Association* (Financial

Quarterly Review), April 1980, Vol. 3, No. 2.

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

The Brookings Institution Conference for Business Executives on Federal Government Operations on "Functions of the General Accounting Office," June 9.

Air Force interns on "The Expanding Role of the General Accounting Office," July 16.

Elaine L. Orr, special assistant to John Heller, was elected to the Council of the National Capital Area Chapter of the American Society for Public Administration.

Harry S. Havens, Assistant Comptroller General, has been named to the editorial board of *Public Budgeting and Finance*. The new quarterly journal will be devoted to the theory and practice of budgeting Government funds. It is sponsored by the American Society for Public Administration's Section on Budgeting and Financial Management and the American Association for Budget and Program Analysis. Allen Schick of the Congressional Research Service is editor. Its first issue will be published early next year.

Office of the General Counsel

Ronald Berger, assistant general counsel:

Spoke before the Defense Advanced Procurement Management Course on "Problems in Formal Advertising," Fort Lee, May 5.

Spoke before the Federal Acquisition Institute on "Bid Protest" and "The General Accounting Office," June 12.

Ronald Wartow, deputy assistant general counsel, addressed the Defense Advanced Procurement Management Course on "Problems in Formal Advertising," Fort Lee, June 11.

Ralph Lotkin, senior attorney, participated in a panel discussion before a State Convention of the Association of Government Accountants on "Access to Records," St. Paul, May 22.

Michael J. Boyle, attorney-adviser, spoke before the Defense Advanced Procurement Management Course on "Problems in Formal Advertising," Hanscom AFB, Mass., May 6 and 7.

Office of Congressional Relations

Martin J. Fitzgerald, director, addressed the following groups:

The Governmental Affairs Institute's Hearings Workshop on May 12.

Chamber of Commerce on May 19.

OPM's LEGIS Fellows Seminar on June 11.

T. Vincent Griffith, legislative attorney, spoke before the Congressional Briefing Conference for Department of Labor employees, sponsored by OPM, on June 17.

M. Thomas Hagenstad, legislative adviser, spoke before:

OPM's Interagency Briefing Conference on April 15.

The Chamber of Commerce on May 5.

OPM's Manager's Conference on June 3.

VA's Policy and Legislation Seminar on June 12.

Michael E. Motley, legislative adviser, discussed the role of the GAO with representatives of the National Assembly of the Republic of Korea.

Personnel

Felix Brandon, director of Personnel, spoke before members of the Northern Virginia Chapter of the International Personnel Management Association on the "GAO Personnel Act of 1980," May 15.

Community and Economic Development Division

Henry Eschwege, director, participated in the Brookings Institution's Conference for Business Executives on Federal Government Operations, May 18-23.

Dan White, group director, took part in a panel discussion on "201 Funding: Allocation vs. Alternatives," at the annual meeting of the Association of Metropolitan Sewerage Agencies, in Nashville, Apr. 28.

Frank V. Subalusky, group director, spoke on "Membership Development in Professional Organizations," before the Potomac and Chesapeake Council of the National Association of Accountants, in College Park, May 3.

Bob Levin, supervisory management analyst, discussed "Peak Hour Pricing and the Efficient Use of Airport Capacity," at the International Air Transportation Meeting of the American Institute of Aeronautics and Astronautics, and the American Society of Civil Engineers, in Cincinnati, May 20.

Todd Weiss, supervisory management analyst, and **Mike Gilbert**, auditor, spoke on "GAO's Work in the Areas of Food, Agriculture, and Nutrition," before the Cooperating State Research Administrators Workshop, May 22.

Roy Kirk, senior group director, discussed GAO's reviews of Federal acquisition and management of the nation's lands, at the Second Annual National Land Use Conference, in Washington, May 22. Also at the conference:

Charles Cotton, management analyst, participated in a panel on "Federal Regulation and Acquisition of Private Land," and **Skip Jenkins**, supervisory management analyst, was a member of a panel on "Federal Conflicts with Resource Availability and Cost."

An interview by Jack Cloherty with **Kelth Fultz**, supervisory management analyst, **Chuck Barchok**, supervisory management analyst, and **Larry Turman**, supervisory auditor, was broadcast on Newcenter 4 (WRC-TV), June 2. The subject was the team's report (CED-80-43, Jan. 16, 1980), which

disclosed a tax loophole allowing owners who have defaulted on their HUD-guaranteed mortgages to continue to deduct accrued interest and depreciation expenses, although they make no payments. About \$200 million in tax revenues may be lost through this ploy.

Doug Hogan, group director, discussed GAO's reviews of the export and interior grain inspection and weighing systems, before the Annual Joint Conference on the National Association of Chief Grain Inspectors and the Federal Grain Inspection Service, in Kansas City, June 4.

John Viallet, issue area planning director, gave the keynote address, "Transportation Issues in the 80's," at the Second Annual Transportation and Traffic Management Conference, Warner Robins Air Logistics Center, June 10.

Phil Olson, management analyst, and **Jeff Itell**, management assistant, discussed GAO's review of National Park Service land acquisition practices, at a town meeting at the Fire Island National Seashore, Patchogue, Long Island, June 23.

Energy and Minerals Division

J. Dexter Peach, director, spoke on GAO's role and responsibility in the areas of energy and minerals before the National Research Council, Commission on Natural Resources' Board on Mineral and Energy Resources in Washington, D.C., May 12.

Douglas L. McCullough, deputy director, testified on DOE's Gasoline Allocation Program before the California Joint Legislative Audit Committee in Stockton, April 25.

F. Kevin Boland, senior associate director:

Discussed GAO's studies relevant to the natural gas industry, at the Executive Branch Relations Breakfast, sponsored by the American Gas Association, in Arlington, June 10.

Spoke on the DOE's Gasoline Allocation Program live on WRC radio on May 8.

Claudia Cooper, management analyst, spoke before the Joint Na-

tional Meeting of the Institute of Management Sciences and the Operations Research Society of America, May 5, on the World Bank's Independent Evaluation System.

Ethan Thorman, presidential management intern, moderated a workshop on the Intergovernmental Perspective on the National Energy Problem, at the PMI Domestic Policy Conference at the Department of State, July 24-25.

Clifford Gardner, management analyst:

Presented a paper on "DOE's Response to GAO's Recommendation To Improve Emergency Planning" to the DOE Food Industry Advisory Committee, in Los Angeles, February 20.

Spoke to the Comptroller General's Panel on Regulatory Accounting on EMD's Past and Present Work in the Energy Regulation Area, July 11.

Federal Personnel and Compensation Division

Joe Gloystein, auditor, spoke on "Determining Agency Work Force Requirements" at the Eastern Regional Conference of the International Personnel Management Association, in Atlantic City, June 3.

Barry Griffiths, auditor, discussed GAO's reports on the Naval Reserve and the Army National Guard/Reserve pay and personnel systems and the Servicemen's Group Life Insurance Program at the U.S. Army Forces command's military auditor training course, in Atlanta, June 19.

Financial and General Management Studies Division

Donald L. Scantlebury, director: Spoke on "Error, Fraud, and Illegal Acts—How We Can Combat Them" at a meeting of the Kelly Air Force Base Management Association, San Antonio, May 21.

Was keynote speaker (for Mr. Staats) on "Well Controlled Accounting Systems—A Must for the 80's" at the National Symposium of the American Society of Military Comptrollers, San An-

tonio, May 22. He also participated in a workshop on GAO Accounting Standards for the 80's.

Gave a presentation on "GAO's Views of the Brooks Act with Respect to Computer Acquisition," at a meeting of the Computer Science and Technology Board, National Academy of Sciences, June 4.

Wilbur D. Campbell, deputy director, spoke on operational auditing at the AICPA's MAS Division meeting in Nashville, May 8.

Walter L. Anderson, associate director, senior level, spoke on "Management Information Systems" before the GAO class at the Wharton Information Systems Program at the University of Pennsylvania, June 27.

Brian L. Usilaner, associate director:

Spoke on "Office Automation: Gateway to Increasing Productivity" at the Records and Information Conference, Fredericksburg, May 21.

He and **Peter J. Lemonias**, management auditor, spoke on "Federal Efforts To Improve National Productivity" at the National Capital Area Chapter of the American Society of Public Administration Roundtable Luncheon, June 18.

George L. Egan, Jr., associate director, led a panel on "Fraud and Abuse...An Oversight of Government Programs," before the AGA's 30th Anniversary Symposium in Boston, June 18.

Joseph J. Danton, senior group director, spoke on GAO approval of Defense accounting systems at the American Society of Military Comptrollers National Symposium, San Antonio, May 21.

Robert Meyer, group director:

Conducted a workshop entitled "GAO's Perspective on Fraud and Abuse" at the American Society of Military Comptrollers National Symposium, San Antonio, May 21-23.

He and **Ralph Running**, team leader, discussed the activities of the GAO Fraud Task Force before the Association of Government Accountants Philadelphia-Trenton Chapters Symposium, Cherry Hill, N.J., May 16.

Lawrence Sullivan, group director, attended the Federal Audit Executive Council Meeting in Gettysburg, May 19-20.

Ernest H. Davenport, assistant director:

Served as panel member on Entering the Profession and Career Paths at the Faculty Summer Seminar of the AICPA in Birmingham, May 29.

Was elected President of the District of Columbia Institute of Certified Public Accountants for fiscal year 1980. This is the first time a Government affiliated person has served in that capacity.

Carl Palmer, group director:

Spoke on "Auditing Computer Planning and Acquisitions" at the National Capital Chapter of the EDP Auditors Association, May 20.

Spoke on "Guidelines for Systems Development Activities: Designed To Aid Managers and Auditors" at the Special Interest Group on Standards and Quality Assurance of the Federal ADP Users Group, June 24.

Robert A. Pewanik, group director, was elected Director of Research, Washington Chapter, Association of Government Accountants.

Ronald Points, group director, participated in a workshop on the Status of State and Local Government Accounting Today—Evaluation or Dilemma, at the Association of Government Accountants Symposium in Boston, June 17.

John S. Relfsnyder, group director:

Was for the third successive year presented with the "best chapter newsletter" award as editor of the Washington Chapter Newsletter of the Association of Government Accountants Annual Symposium.

Was named President-Elect for the Washington Chapter, Association of Government Accountants.

Robert J. Ryan, assistant director, moderated technical workshops on "Auditor Independence" and "Working with the News Media" at the Association of Government Accountants Symposium, Boston, June 17-18.

W.A. Broadus, team director:

Conducted or participated in the following technical workshops at the Association of Government Accountants symposium in Boston, on June 16, 17, and 18: "The Single Audit Concept...Implementation of OMB Circular A-102"; "New Emphasis in Governmental Auditing...The Role of Public Accountants"; and "Governmental Audit Standards ...An Update."

Spoke to the 1980 National Society of Public Accountants Conference on "Government Regulation and Federal Investigation and Oversight of the Accounting Profession," May 21.

Robert F. Raspen, supervisory auditor:

Spoke of the "Quality of Certified Public Accountant Audits" before the Spanish-speaking CPAs, Miami, June 6.

Spoke on the "Single Audit Concept" at the West Virginia Society of CPAs, Charleston, Apr. 28.

Kenneth J. George, systems accountant, presented a workshop on budget and accounting interrelationships at the Association of Government Accountants Symposium in Boston, June 19-20.

William C. Kennedy, systems accountant:

Has been reappointed Chairman of the Association of Government Accountants' National Research Board for the third year.

Spoke on the Association of Government Accountants' research activities and the importance of continued financial management research in Government, at the Association of Government Accountants' National Symposium, in Boston, June 17.

Frederick J. Rauscher, systems accountant, was elected to be a member of the Research Committee, Washington Chapter, Association of Government Accountants.

Kenneth W. Winne, systems accountant, was elected Director of Awards, Washington Chapter, Association of Government Accountants.

Paul S. Benoit, supervisory computer systems analyst, was elected 1980-81 President of the Patuxent Chapter of the Association for Systems Management. This is

Paul's third term as chapter president.

Kay Drake, supervisory computer systems analyst, was elected 1980-81 Vice President/President-Elect of the Washington Chapter of the Association for Systems Management.

Ronald Kozura, supervisory computer systems analyst, was elected 1980-81 President of the Washington Chapter of the Association for Systems Management.

John W. Lalnhart, supervisory management analyst:

Spoke on "Computer Auditing within the GAO" at the Institute of Internal Auditors EDP Audit and Control Seminar, May 21.

Spoke on "EDP Auditors Foundation's Certification Program" at the 8th International EDP Auditors Association Conference, Mexico City, June 18.

Received an Outstanding Service award from the EDP Auditors Foundation, and was elected to the Board of Trustees for 1980-83.

William M. Solls, auditor, discussed the Interstate Commerce Commission's new costing system at a Rail Costing Seminar in Washington, D.C., June 2.

Joint Financial Management Improvement Program

Susumu Uyeda, executive director:

Conducted two workshops, one on Grant Management and the other on the Single Audit Concept, at the National Convention of the Municipal Finance Officers Association in Phoenix, May 14.

Gave a presentation on "Standard Administrative Requirements for Grants in OMB Circular A-102" for the State Grant Managers, Richmond, June 18.

Human Resources Division

Gregory J. Ahart, director, participated as a panel member in the Executive Development Seminar for mid-career Government executives conducted by the Executive Seminar

Center, Oak Ridge, Tenn. Sessions were entitled: "Managing Policy and Program," "Executive Effectiveness," and "The Federal Executive in Transition," June 25-26.

Beryce W. MacLennan, principal psychologist:

Was reelected Vice-President, Compliance, Federally Employed Women.

Was appointed to the Editorial Board of "The Paraprofessional Journal" for fiscal year 1981.

International Division

James R. Hamilton, management analyst:

Is beginning the second year of a 3-year appointment to the Association of Government Accountants (AGA) International Affairs Committee and is currently serving as Committee Secretary.

Wrote an article entitled "International Dimensions of Governmental Financial Management—The International Consortium on Governmental Financial Management" for the Spring 1980 edition of AGA's quarterly professional publication, *Government Accountants Journal*. This article is the first of a series covering the establishment of an international consortium of AGA and its counterpart organizations in other countries.

Thomas R. Brogan, group director, spoke on evaluation strategies to the Advisory Committee on Voluntary Aid Conference on June 24.

Institute for Program Evaluation

Eleanor Chellmsky, director, discussed program evaluation with Jean de Kersvadoue, Assistant to the French Secretary of Agriculture, June 19.

Keith Marvin, associate director, chaired two sessions on "Evaluation by the U.S. GAO" at the Joint National Meeting of the Institute of Management Sciences and the Operations Research Society of America, May 5.

Wallace Cohen, group director:

Participated in a panel discussion on "Organizing and Manag-

ing Federal Program Evaluation To Improve Performance/Accountability," at the National Meeting of the American Society for Public Administration, in San Francisco, Apr. 13. He also helped conduct an all-day workshop on program evaluation and auditing at the ASPA meeting and has been selected to serve on ASPA's Committee on Professional Standards and Ethics.

Chaired two sessions on Federal program evaluation at the National Meeting of the Institute of Management Sciences and the Operations Research Society of America, May 6.

Addressed a group of Federal Government managers at the Federal Executive Institute on GAO's role in Federal program evaluation, Charlottesville, June 12.

Along with **Joseph Comtois**, group director, addressed a graduate seminar at the University of Southern California College of Public Affairs, Washington, D.C., on Federal evaluation issues and the GAO's Institute for Program Evaluation, June 13. Discussed "Evaluation Strategies" before the Advisory Committee on Voluntary Aid Conference, June 24.

Procurement and Systems Acquisition Division

John G. Barmby, assistant to the director for systems analysis, spoke on "Management of Scientific and Engineering Organizations" at OPM's Washington Management Institute, June 18.

John A. Rinko, group director, discussed the findings in GAO's report "Better Management Needed in DOD To Prevent Fraudulent and Erroneous Contract Payments and To Reduce Real Property Maintenance Costs" via telephone on Mark Savan's Talk Show over Seattle's radio station KVI, June 27.

Carl F. Bogar, group director, appeared on Washington's WTTG-TV Panorama Show and discussed the misuse of consultant services in the Federal Government, June 23. Mr. Bogar and **Clifford N. Melby**, team

leader, briefed Inspector General teams from the Departments of Agriculture, Housing and Urban Development, and Transportation on how to audit consultant service contracts, July 11 and 15.

Les Farrington, team leader, spoke on "GAO's Role in Test and Evaluation" at the Defense Systems Management College, Fort Belvoir, May 1.

Program Analysis Division

Morton A. Myers, director:

Spoke on the mission and activities of the GAO and the nature of its relations with congressional committees, other congressional organizations, and executive agencies, at the Brookings Institution's Public Policy Seminar and Federal Faculty Fellows Orientation, July 21.

Addressed the management Development Seminar, Kings Point, N.Y., on "Evaluating Program Impacts and Outcomes," July 22.

Ken Hunter, senior associate director, spoke on "Monitoring and Reporting to the Congress and the Public on Governmental Performance," before the Spring Seminar of the American Association for Budget and Program Analysis, Apr. 17.

Donna Heivilin, principal budget analyst, was a member of a panel on "Putting Together a Capital Budget: Examples of State Capital Budgets and Techniques for Capital Resource Financial Planning," at the annual Western Regional Meeting of the National Association of State Budget Officers and the Council of State Planning Agencies, in Santa Fe, June 12.

Mark Nadel, social science analyst, served on the faculty of a Congressional Research Service Graduate Institute for congressional staff members at Washington College, Chestertown, Md., May 29-31. The institute taught legislative procedure through a simulated legislative exercise on regulatory reform.

Mary Hamilton, acting group director, took part in a panel discussion on "Lessons Learned/New Opportunities," at the National Science

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Foundation's Industrial Program Grantee Conference, in Hot Springs, Ark., May 14.

Margaret Dyess, supervisory program analyst, and **Bob Kershaw**, operations research analyst, Institute for Program Evaluation, spoke on "Continuing Reform of the Federal Government's Budgetary and Evaluation Processes," at the Mid-Atlantic Regional Meeting of the American Accounting Association, Apr. 12. **Ken Hunter**, senior associate director, was moderator.

William Jenkins, social scientist, presented a paper, "The Judicial Power of the Purse: Court Constraints on Congressional Budgetary Decisions," at the Midwest Political Science Association Meeting, in Chicago, Apr. 24.

Field Operations Division

Francis X. Fee, director, spoke on the role of GAO and Field Operations Division and how it carries out its work before students from Wayne State University, College of Education, June 26.

Atlanta

Talmage E. Cox, supervisory management auditor, spoke on "The Role of the Accountant: Public and Private Sectors," and **Wayne L. Catrett**, professional development coordinator, spoke on "Career Opportunities with the Federal Government" to the Georgia State University Chapter of Beta Alpha Psi, the national honor society in accounting, Atlanta, May 16.

Boston

Several staff members had active roles in the Association of Government Accountants' 30th Anniversary Symposium, Boston, June 16-18:

Fred D. Layton, regional manager, host chapter president, introduced guest speakers at the plenary sessions and chaired a workshop.

Nicholas Carbone, assistant regional manager and president-elect of the Boston AGA Chapter, served as registration chairman, assisted by **Charlie Neville**, supervisory auditor, and **Dick Donaldson**, auditor.

Louis Lucas, assistant regional manager, was chairman of the program committee.

Fred Cross, supervisory auditor and New England Regional AGA vice president, served as finance chairman and received an award as the outstanding regional vice president for 1980.

Nicholas Carbone, assistant regional manager, spoke on:

"Auditing for Fraud" at an AGA training session, Boston, June 19.

"Operational Auditing" before the Bridgeport and Hartford AGA Chapters, Apr. 21 and May 13.

Chicago

Bill Schad, assistant regional manager, conducted workshops on quality assessment reviews at the National Joint Conference of Intergovernmental Audit Forums, Dallas, Apr. 23-25.

John Wanska, supervisory auditor, made a presentation on GAO auditing standards and techniques at the advanced auditing class, University of Minnesota, Duluth, May 9.

Stewart Seman, supervisory auditor and president of the Chicago chapter of the AGA, spoke on chapter management at a workshop held during the Association of Government Accountants' National Symposium, Boston, June 16-18. The Chicago chapter took top honors in the Association's fiscal year 1980 chapter activities competition, receiving the Bernard B. Lynn trophy for best chapter in the 100 to 300 member group and the award for the greatest percentage competition point increase in this group.

Rick Calhoon, supervisory auditor, and editor of the Chicago Chapter AGA newsletter, received the AGA award for best newsletter. The award was presented at the AGA National Symposium, Boston.

David Utzinger, supervisory auditor, discussed GAO's report, "The Federal Drive To Acquire Private Lands Should Be Reassessed," at a public meeting, Carmel, Calif., June 18.

Cincinnati

Charlene Rutar, management auditor, received an MBA from

Xavier University, May.

Shirley McGuire, auditor, received an MBA from Xavier University, August.

John Michael Murphy, Jr., supervisory auditor, participated in the Third-Sixth Circuits Sentencing Institute, Lexington, May 6-9.

Harold R. Fine, assistant regional manager, presided over the Joint Greater Cincinnati Federal Executive Board/Federal Business Association Federal Employee of the Year Awards ceremony, Cincinnati, June 17.

Dallas

Irwin M. D'Addario, regional manager, spoke on "Communicating Audit Results" to the Intergovernmental Audit Forum, Dallas, Apr. 23-25.

Denver

Connie G. Bartram, auditor, was appointed to the Denver Federal Executive Board's Awards Committee by the Denver Chapter, Association of Government Accountants, May 1.

John S. Bunting, auditor:

Was appointed to a second annual term on the Colorado Society of Certified Public Accountants' Taxpayer Assistance Committee, May 1.

Received the annual Outstanding Service Award from the Denver Chapter, Association of Government Accountants, May 2.

James A. Reardon, supervisory auditor, was appointed executive director of the Mountains and Plains Intergovernmental Audit Forum, July 28.

Detroit

Randall D. Conley, assistant regional manager, was designated President-Elect of the Motor City Chapter, Association of Government Accountants.

William F. Laurle, supervisory auditor, spoke on:

"Racial Differences and the Well-Being of Cleveland's Aged" at the Symposia on "Understanding Culturally Diverse Population," Cleveland State University, June 10.

"Comparison of the Well-Being of Older People in Urban and Rural

Locations" at the National Conference on Social Research Technique, Duke University, June 13.

Kansas City

Arnett E. Burrow, assistant regional manager, spoke on "Planning for Change" before the Heart of America Presidential Management Intern Cluster, University of Missouri—Kansas City, June 5.

Los Angeles

Vic Ell, supervisory auditor, spoke on "Program Evaluation Techniques Applied by GAO to the Health Area" to the graduate class of the School of Public Administration, University of Southern California, Apr. 17.

Fred Gallegos, management analyst:

Was a panelist for a discussion on "Software Engineering Technology Transfer" at the National Computer Conference, Anaheim, May 22.

Was elected trustee/vice president of the EDP Auditors Foundation for Education and Research for 1980-81, June 15.

Taught a course on Data Processing Management at California State Polytechnic University, Pomona, June 26-Aug. 30.

Nick Horsky, staff manager, and **Fred Gallegos** spoke on "The Role of the Management Science Group in Los Angeles Regional Office Operations" to the staff of the Western Field Office of Audit, Office of Inspector General, Veterans Administration, Los Angeles, Apr. 23.

Norfolk

Warren Cottingham, auditor, was one of the successful candidates who passed the May 1979 CPA examination.

Philadelphia

Ralph V. Carlone, regional manager, spoke on "GAO Efforts Related to Waste, Fraud, and Abuse in Federal Programs" before the Frankford Rotary Club, Philadelphia, Apr. 25.

Joseph Daly, assistant regional manager, spoke on GAO's report, "Funding of State and Local Government Pension Plans: A National Problem" at the National Con-

ference on Public Employee Retirement Systems, Orlando, Apr. 16, and at the Pension Commission Conference, Washington, D.C., May 8.

Dick Halter, supervisory management auditor, and **John Hoelzel**, management auditor, addressed and participated on a panel on "Useful Methodologies in Evaluating a Rehabilitation Program Financed by Social Security" at the National Meeting of the Council of State Administrators of Vocational Rehabilitation, Alexandria, Apr. 30.

Guido D'Angelo, supervisory management auditor, addressed the Western Intergovernmental Audit Forum on the subject of "Fraud, Waste and Abuse Project Initiated by the Mid-Atlantic Intergovernmental Audit Forum," Phoenix, May 30.

San Francisco

Jack Birkholz, supervisory auditor:

Was a member of a panel discussing the "Freedom of Information Act" at a joint conference of the Intergovernmental Audit Forum, Dallas, Apr. 23.

Spoke on the "Single Audit Concept" to the Audit Chiefs Committee of the California State Association of County Auditors, San Diego, June 6.

Participated in a panel discussion on "Auditor Independence" at the AGA symposium, Boston, June 17.

Jeff Eichner, supervisory auditor, was awarded an AGA chapter service award, June 18.

Tom Monahan, supervisory auditor, spoke on "Assessing the Reliability of Computer Output" at the Defense Contract Audit Agency's EDP Internal Controls Workshop, San Mateo, June 5.

Seattle

Frank C. Pasquier, supervisory auditor, discussed GAO's role and functions with the senior auditing class, Seattle University, Apr. 16.

Robert A. Higgins, supervisory auditor, spoke on "Project Management at GAO," before the Seventh Annual Financial Management Symposium, sponsored by the Association of Government Accountants, Portland, Ore., Apr. 18.

Keith C. Martensen and **James L. McMullin**, supervisory auditors, and **Kim F. Kenney** and **Dorlene R. Bleha**, auditors, discussed GAO's role and functions with visiting members of Beta Alpha Psi, University of Washington, during the chapter's Career Day Program, Seattle, May 5.

Ray S. Hausler, audit manager, discussed GAO's report on the effects of transferring planned investments in Pacific Northwest nuclear power plants to electricity conservation measures and renewable energy sources:

Over radio station KAYO's evening public affairs program, Seattle, May 20.

At a meeting of the Pacific Northwest Waterways Association, Wenatchee, June 26.

Stephen J. Jue, supervisory management auditor:

Spoke on "Auditing the System Development Life Cycle Process" before the Puget Sound Chapter, EDP Auditor's Association, Seattle, May 20.

Along with **Warren R. McIntosh**,

management analyst, and **Julie Rachiele**, technical information specialist, participated in "Government Activities Night" at the Beta Alpha Psi Chapter, University of Washington, Seattle, Apr. 15.

Washington

Cliff Jennings, economist, was elected to the Board of Directors, Society of Government Economists, during the annual meeting, May 12.



Josephine M. Clark

This column has been featuring news for and about GAO alumni. Unless more news is contributed, it will be discontinued. If you want to see it continued, please send your contributions to Jo Clark, c/o GAO Room 7124, or phone 202/275-5534.

Reporting on GAO Alumni

Mr. A. T. Samuelson, former Assistant Comptroller General, attended the 1980 International Conference of the National Accountants Association, held in New Orleans in June. He sponsored **Mr. Frank Subalusky**, group director in the Community and Economic Development Division, as a new member of the prestigious Stuart Cameron McLeod Society, which is a National Officer's professional organization within NAA.

Cathy Mechlin, former secretary to the director, Office of Internal Review, now a student at Heritage University at Charlotte, N.C., is on a missionary trip to Hawaii, Korea, and Guam.

Stewart McElyea, former Assistant Comptroller General, perhaps best known for his years with the Field Operations Division, does not believe in a leisurely retirement. He

has just become the Director of Audits for the National Consumer Cooperative Bank, located in Washington, D.C. Stu finds it very challenging, but quite different from GAO. For one thing, there are only about 200 employees. He is pleased to say he knows not only his audit staff but *all* Bank employees.

The talents of **Sam Hughes**, former Assistant Comptroller General, now with the Smithsonian Institution, were recently recognized once again. The National Capital Area Chapter of the American Society for Public Administration recently gave him their annual President's Award. Outgoing chapter president Brad Patterson of the Brookings Institution cited Sam's GAO experiences as one of the many highlights in an illustrious career.



From left: Frank Subalusky, A. T. Samuelson at the 1980 International Conference of the National Accountants Association.

Annual Awards for Articles Published in The GAO Review

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

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

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

- Originality of concept and ideas.
- Degree of interest to readers.
- Quality of written expression.
- Evidence of individual effort expended.
- Relevance to "GAO's mission."

Statement of Editorial Policy

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.

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