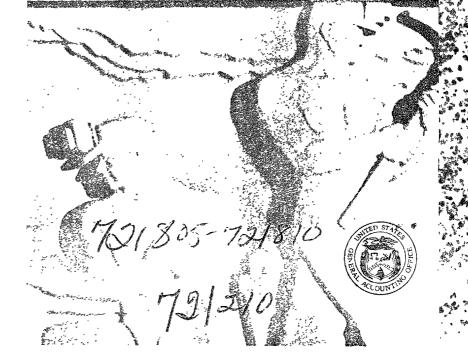




# SPRING 1978



#### SCULPTURES AT THE "G" STREET ENTRANCE



(Compressed view)

American laborers and professional workers are depicted in the bas-relief sculptures that decorate the red granite portals of the recessed entrance of the buff limestone GAO Building on "G" Street. The sculptures were designed in 1951 by Joseph Kiselewski, noted U.S. sculptor, of New York.

Nine feet high and 15 feet long, the two panels curve around both sides of the entrance. They contain about 30 figures representing Americans most affected by Government programs.

On the front and back covers of THE GAO REVIEW is a partial section of the two tiers that divide each panel. The panel on the right side of the entrance depicts agriculture in the top tier and mining in the bottom one. Among other themes included in this panel are fishing, warehousing, and transportation.

The panel on the left side of the entrance shows the professional worker and the occupations that concerned the economy in the 1950s. These included the themes of engineering, science, education, and art.

Themes such as the military were left out at the time, 5 years after World War II, and themes such as space, welfare, crime, and atomic energy had not yet become areas of major national concern.

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## THE GAO REVIEW

#### **SPRING 1978**



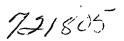
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### Future of the American City

Revitalization of urban centers is seen as necessary for social and economic progress of the Nation. GAO studies and reports in the area are outlined in this excerpt adapted from a talk by Comptroller General Staats before the Philadelphia Bar Association on December 6, 1977.

There is a very real question today as to whether the American city as we have known it—the center of commerce and culture, the wellspring of industry and ideas—can and should survive. Indeed, there are many who argue that the city as the economic and intellectual center of American society is an anachronism.

These observers argue that the city no longer plays a predominant economic or social role in American society and that the realities of the market do not allow for the maintenance of the city at its present size or level of activity. In their view, the market should be allowed to operate unfettered, forcing each city to find a new point of equilibrium with a smaller population and a further diminished level of economic activity.

Some observers go further, arguing that the future of the city is bleak indeed. Norton Long, for example, predicts that the late 20th century will usher in the era of the "city as reservation."

That is, the city will serve primarily as home for those that cannot care for themselves or those for whom society can find no alternative means of providing care—a reservation for "the poor, the deviant, the unwanted, and for those who make a business or career of managing them for the rest of society."

This bleak picture, according to proponents of a national policy to revive and rehabilitate American cities, rests on a questionable premise, namely that the city has been found wanting in a free and open market situation. In fact, these analysts contend, the present noncompetitive status of the city is a product more of conscious or unconscious Government policy than of the marketplace. The plight of the city, in this view, is the result primarily of national policies that favor new construction over rehabilitation, truck transport over railroads, private automobiles over mass transit, and investment in capital equipment rather than in jobs or training programs. This is not to imply that the economic advantages of locations outside central cities are all illusory or that the city should occupy the same central place in the economic sphere that it once held. But it does argue that there is a real and important role for the city in the American economic and social scene, a role that far exceeds that of "reservation."

#### A Vision for the City

There are several factors that underlie the importance of the American city and constitute the justification, even the requirement, that it be maintained and rehabilitated. In an era in which people have begun to recognize the limits of our natural resources and the importance of utilizing those resources wisely so as to conserve wherever possible, the city has assumed a new role as conservator of land, energy, and natural resources.

Undeveloped land is a limited and valuable commodity, valuable as wilderness, as a resource for recreation and above all as the basic input for agriculture. To permit development of this limited resource at the present rate of 5 million acres per year at the same time that we are permitting already developed land to be underutilized and to deteriorate makes little sense. Furthermore, even where additional conversion of land is required for new industry and housing for an expanding work force and population, it is certainly wasteful to maintain our

present style of low density and discontinuous development.

Sprawled development is also much more wasteful of limited energy resources than is denser urban development. Suburban and exurban development is much less efficient than the city in the use of energy for transportation, not only in terms of commuting but also in the energy costs of daily activities such as shopping, visiting, going to school, and delivering goods. And, added to the direct use of energy by the automobile are the energy costs of constructing, lighting and even patrolling the new roads and parking lots that are required for this type of development.

#### **Energy and Resource Costs**

There are also substantial energy and natural resource costs associated with allowing existing capital facilities to go unused and to deteriorate while at the same time employing scarce resources to construct replacement facilities. Furthermore, the energy and resource costs of maintenance and operation of capital investment are higher per unit in areas of less dense development. At the same time, they rarely allow significant service decreases in previously developed but now partially abandoned areas.

If all these factors are taken into account and if existing Federal incentives favoring suburban development were reassessed, then on economic grounds alone there would be a clear case for the continued role of the city in American

life. But there are also important social reasons for revitalization of the urban community.

The first of these social reasons relates to the maintenance of choice of lifestyles. While some may perceive this merely as a matter of taste, it is an important component of a free society that people have the opportunity to choose among different sorts of living patterns. At this time, there is a substantial—and probably growing—number of families and individuals that would prefer an urban existence, for reasons of both style and economy.

I am not optimistically predicting, as so many did in the 1960s, that there is a real or potential flood of middle class Americans returning from suburbia. But there has been sufficient evidence of the interest of middle class families and individuals in returning to cities across the country to realize that the maintenance of the option is an important social goal. One only has to look at the Society Hill and Queen Village sections of Philadelphia, at Beacon Hill and the South End in Boston, and at Capitol Hill and Shaw in Washington to perceive that there are middle class Americans who are anxious to live in the urban environment and are willing to invest and work hard to make such a lifestyle a reality.

Another component of the urban scene worth preserving and revitalizing is the sense of community found in the urban neighborhood. At a time when many social institutions, including church and family, are threatened with serious breakdown, the urban neighborhood has demonstrated an ability to continue as a cohesive and viable social institution. Among the abundant examples of strong urban neighborhoods are the Kensington section of Philadelphia, the North End of Boston, the Stockyards area of Chicago, the Hamden section of Baltimore, and the Williamsburgh area of Brooklyn.

#### Catalyst in Society

But the most important social reason of all is the traditional role of the city as the locus and catalyst of upward mobility in American society. As a society, we cannot morally or economically afford to write off the poor, the undereducated, the disadvantaged. More importantly, we cannot write off the children and the yet unborn generations of Americans who will find themselves "on the reservation" if we do not undertake serious and determined efforts to increase opportunities for today's poor. And, while a viable city is not sufficient to diminish the travails of poverty in our society, it is a necessary component of such an effort, if only because the city has become the home of so many of those who suffer under this condition.

It is thus encouraging to know that, for both economic and social reasons, pressures are now growing for some kind of Federal response to the deteriorating circumstances of urban America. These points have been perceived by many Americans, by officials in the administration, and by Members of Congress. For example, let me cite "To Save a City," a report recently issued by Congressman Henry S. Reuss, Chairman of the House Committee on Banking, Finance, and Urban Affairs and of that committee's Subcommittee on the City.

The administration is now working, through a cabinet-level task force chaired by Secretary Patricia Harris of the Department of Housing and Urban Development, to develop a national urban policy statement. At the same time, the administration is moving forward on plans for an early 1978 White House Conference on Balanced National Growth and Economic Development, a topic closely related to many of the issues discussed here.

#### **Urban Reports New for GAO**

Over the past several years, GAO has conducted a number of studies and provided a series of reports to the Congress that will provide assistance in the legislative deliberations necessary for implementation of an effective national urban policy. These studies include audits and evaluations of existing urban-related Federal programs—such as general revenue sharing, housing programs, employment and training programs-as well as analyses of longer term problems, as was the case in the study of the fiscal outlook of New York City.

GAO will continue to undertake

both program evaluations and issue analyses on the impact of Federal policies and programs on the American city. In fact, GAO has just embarked upon a major undertaking to outline for the Congress the many factors that should be considered in the formulation of a Federal urban policy. This type of effort represents a relatively new way in which GAO aids the Congress in meeting its legislative and oversight responsibilities, and is an outgrowth of the Congressional Budget Act of 1974, a law enacted to enable the Congress to make more informed program and budget decisions.

#### Available to the Public

Of the many other examples of analyses and audits of programs affecting American cities, there is one which was recently completed and two others which are currently underway. These will serve to illustrate the literally dozens of reports dealing with Federal policies and programs affecting American cities which GAO makes each year and which are available not only to our Congress but also to the executive branch of the Government and to the general public as well.

Last September, GAO issued a report entitled "Environmental Reviews Done by Communities: Are They Needed? Are They Adequate?" In this report, we attempted to take a sympathetic but realistic look at the problems communities face in dealing with the environmental impact reviews

which they are required to make as a condition for receiving community development block grants. GAO questioned the need for many of these environmental reviews and made recommendations aimed at eliminating them, including one recommendation which, interestingly enough, would eliminate such reviews for local beautification projects and social service projects.

Currently, GAO is making a comprehensive study of the problem of abandoned housing in U.S. cities. In this study, we are reviewing the problem in 201 cities, including Philadelphia, to determine the severity of and possible ways to ameliorate the housing abandonment problem. Overall information on this subject, incidentally, has never been developed in any comprehensive manner. GAO's work to date indicates that housing abandonment is a major national problem; there is no national strategy to combat the problem; and the cities which have made some efforts to deal with the problem have met with little or no success.

In another study currently underway, we are attempting to evaluate the major factors affecting middle-income families' ability to afford a new home. The average selling price for new homes, nationwide, has risen above the \$51,000 mark. How is this affecting the ability of families to own their homes? In this study GAO is particularly interested in looking at the impact that governmental regulations, zoning ordinances, building codes, and so forth, have on the price of new homes.

It must be added that while these examples have been limited to the problems of large cities. these urban problems also apply to older cities of any size. In our national passion for newness and change, we have tended to discount the economic and social advantages of our existing communities. An effective national urban policy must be a policy that stresses the preservation and revitalization of all our existing communities as well as the ordered and efficient development necessary for the continued growth and economic prosperity of our Nation.

# GAO's Space Renovation Effort: Project Management in the Real World

Within the last 6 years the General Accounting Office headquarters has succeeded in providing a working environment that rivals that of any Federal installation in convenience, privacy, and good treatment of employees at all levels.

While GAO spends a great deal of its time and resources on auditing the administrative services as practiced in other agencies and as provided by the General Services Administration (GSA), rarely do the administrative efforts of GAO get publicized. This article is an attempt to give some facts, opinions, reflections, and insights into the space renovation effort that GAO has been involved in since 1972.

The statistics of the renovation effort are easy enough to deal with. Over 450,000 square feet of space have been renovated and furnished at a total cost exceeding \$3,216,000. Over 10,000 pieces of new furniture have been purchased and a nearly equal amount declared surplus to GAO's needs. Over 11 acres of carpet have been installed. Over 1,900 people have been moved,

some several times. Over 4,000 telephones have been installed, moved, upgraded, or rearranged. However, these statistics do not begin to reflect the compromises, the confrontations, the successes and the disappointments that the Office of Administrative Services staff experienced with this renovation effort.

Why was the renovation undertaken at all? Those who were in GAO 10 or 12 years ago can readily explain, and some photographs still exist to confirm the reason. The building had not had major attention since its construction in 1949-50. Sevenfoot-high plasterboard walls were a standard-such as it wasalternating with the low, green metal partitions with corrugated plastic tops. Gray linoleum, apparently originally specified for battleships, covered every horizontal surface. Walls were the pale green of the operating room when they were not a dull beige; sometimes it was difficult to tell, since GSA then painted only every 10 years or so and the painted walls defied cleaning, since they tended to lose their

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finish and surface. Furniture was the stolid, serviceable dark green with those same linoleum tops; for variety, some medium gray was interspersed here and there because the Government at some point daringly changed its standard from green to gray.

Add to this less-than-stimulating environment the problems of hot and cold spots, wind tunnels, and the way the random, impromptu offices were laid out. Because the building had been designed essentially as an open area with enclosed offices lining only the perimeter, everything in the air conditioning and heating system followed that concept. In the air conditioning system, return air was drawn through the area, over the shoulders of the occupants, to a very few large air return ducts. As interior dividing walls increased in number and complexity, the air had more and more difficulty finding its way to its destination. Wind tunnels of great strength were created at many locations; one at the east end of the 6400 corridor became almost legendary for its strength and consistency.

The heating and cooling system was also peculiar in its layout and control mechanisms (a problem that remains today). On some floors there are separate systems at each corner of the building. While this was partly intended to deal with the warming effects of the sun on the east and south sides, the results could best be described as spotty.

The lighting system consisted of inverted, curved plastic

shields—affectionately known as "hog troughs" by those who lived with them—shining their not-very-strong light upward, to be reflected downward from supposedly white ceilings. However, the ceilings were seldom white, given the soot that the heating system emitted; when they were white it was because they had been painted so often that the acoustical properties of the ceiling had been lost entirely.

The quality of individual work spaces varied widely. Few people below the GS-15 level had any work space that they could call their own, unless a desk in an office occupied by three or four other people would qualify; often four GS-13s would be found together. There was no privacy and one telephone might be shared by all of the occupants. The phones rang incessantly, throughout a work area, and getting an answer was a sometimes thing. As late as 1968, one could stand at one spot on the fifth floor and see nearly 500 employees in the transportation audit function going about their daily activities.

Surprisingly, very few people complained. The leadership of the transportation audit organization did finally ask, somewhat tentatively, that their space be subdivided so only 250 or so people could see each other, but such outbursts were rare. Those who had written their initials on their walls when hired by GAO could complain that they were still there 8 years later, but such renegades were also relatively unusual.

Why employees tolerated such conditions for so long probably has many explanations. Some who had been around since the late 1930s persisted in pointing out how well off everyone was now, compared to "the good old days" in GAO; they were thankful for a job and a place to work. Younger employees were not seeing anything much better in the agencies they visited or audited; after all, gray, green and beige colors and linoleum floors were prevalent. And, finally, there was a sense of futility on everyone's part about doing anything economically feasible that would help the heating and air conditioning situation.

Several things happened around 1971 that brought about the major changes that have been seen since. For the first time, GSA took note of the growing movement towards "office landscaping" and participated in a demonstration project by the Department of Labor that happened to be located—and is still located—on the first floor of the GAO Building; carpet, bright colors, sound baffles, and even live plants were among the foreign objects found in the conception of how an office should look. GSA followed this with their "Office Excellence" program which was to provide an integrated program of design concepts—but more about that later. Several suppliers, having seen the potential of open landscaping in the private sector, began to design portable partitioning and furniture and equipment that worked

well in that environment. Newer staff members began to raise questions of whether it was not foolish to spend so much on recruiting and training highly qualified staff members, only to put them in a working environment guaranteed to provide maximum discomfort, maximum drabness, and maximum distractions from their work efforts. These factors and the strong desire of the Comptroller General and the Director of the Office of Administrative Planning and Services to do something about this situation led to the first congressional request for funds specifically for this purpose in 1971.

Very few seemed to oppose the change to a more productive and attractive working environment, although comments like "Just give me a peach crate to work on and I'll be happy" continued until recently (and perhaps can still be heard).

However, the actual design of the change and the approach that we would take was the subject of perhaps as much honest debate, misunderstanding, poor communication, bruised feelings, and compromise—always compromise—as any audit work that GAO might do or imagine itself doing.

However, this had the added dimensions of (1) being largely a matter of taste and judgment, with few right or wrong answers or "objective standards," (2) being partly a matter of expense, which we found became a very abstract problem as far as some staff members were concerned,

and (3) requiring some reduced status and inconvenience for higher level people in the organization, with few offsetting personal benefits. None of these was likely to make for an effortless solution to the challenge we faced.

The final approach that evolved and that has been consistently followed involved the resolution of many issues.

#### The Luxury-Austerity Issue

How elaborate and expensive should GAO's remodeling effort be? There were certainly many models available from the private sector which supported the argument that most of this construction and furnishing was nonrecurring and not very costly when amortized over many years; therefore, it could be relatively opulent. that any amount spent per individual work station would be a tiny fraction of the cost of recruiting and training when unsatisfactory working conditions might contribute to someone leaving. Nevertheless, GAO chose a level of remodeling that leaned to the conservative side. The carpet that was selected was a serviceable commercial grade from the GSA Supply Schedule; the furniture was also from the new "Office Excellence" line introduced by GSA. The portable partitions that were selected are the ultimate in inexpensive and maintenance-free surfaces (although not without their own kind of costs).

This relatively austere approach, in addition to protecting the interests of the taxpayer, has proven a wise one in terms of completing the program. At least one congressional appropriations subcommittee staff director insisted on touring our facilities around the time of our appropriations hearing; as so often happens in the budget review process, "Other Objects" looked like a large amount and one readily susceptible to cutting. The cuts were never made or even suggested in the hearings themselves, indicating that the GAO approach satisfied a congressional staff which works in far worse conditions than GAO's professional staff now does.

# The Office-Constructed-of-Portable-Partitioning Issue

fore, it could be relatively opulent. Perhaps nothing in the planning The argument was often made that any amount spent per individual work station would be a Perhaps nothing in the planning raised as many questions as the two of 6-foot high portable partitioning and the type chosen.

From the beginning, one of the main goals of the design was maximum flexibility. For years, what little renovation had been done had required plasterboard partitioning to be torn down and rebuilt—an extremely messy, disruptive, expensive, and timeconsuming job. (Fortunately, from the facilities staff standpoint, there had been little of it.) With GAO's changing organization at the time the renovation program began, it was clear that the facilities staff could not reasonably keep up with that approach, either logistically or financially; even at that time GAO was being charged about \$30 per lineal foot to erect a foot of plasterboard partitioning and about \$5 per lineal foot to tear one down. (Paint and doors were extra, of course.)

A second goal was a relatively private working area for each employee. Although there were—and probably still are—those who claim that having several professional staff members working in a room together enhances professional development and the interchange of ideas, the majority seemed to crave a place where they could work relatively uninterrupted, with sufficient storage and table space to deal efficiently with their working tools. Under the best of circumstances, and if cost were no object, that might have been private, ceiling-high plasterboard offices with doors. The peculiarities of the heating and air conditioning system, the size of the offices that could be afforded from a space rental standpoint and that met any kind of commercial or GSA occupancy standard, and the problems of flexibility all precluded that. Instead, a configuration of individual "modules"—a term whose origins are obscure in this context-and numerous small conference rooms was the compromise that emerged.

The type of partitioning was a related issue. At the time the renovation began, there were few choices on the market. Most were of a soft fabric, usually burlap, with interlocking metal or wooden frames. They were widely touted as having a good acoustical effect (a contention since put in consid-

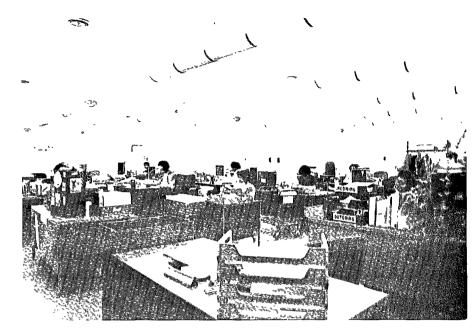
erable doubt by acoustical engineering consultants). At the same time they were expensive—at least as expensive as plaster-board construction—and their fabric surfaces made them subject to maintenance problems. Most were intended as screens, rather than for creating an interlocking "office" effect. Most had no provision for shelves, and most had extended feet that made furniture placement somewhat difficult.

The solution to partitioning was the vinyl-clad particle board with attached shelving that was selected. Purchased directly by GAO on a series of competitive procurements, two suppliers have furnished the thousands of feet of partitioning that were installed, providing a variety of color and "accent panel" design choices.

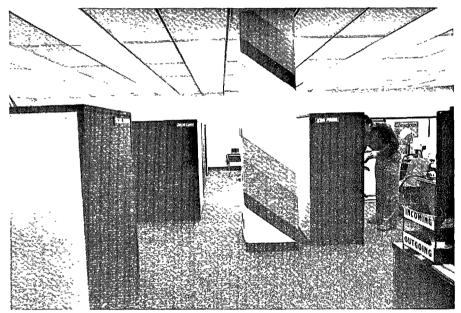
#### The Office Size Issue

When seen in all of its aspects, no change from previous practice evoked such a strong reaction as this one. Here, whole new aspects of the personalities and psychic needs of some of our staff members were starkly revealed.

The modules were relatively little trouble, since everyone affected was somewhat better off than before. However, one initial design concept was unduly optimistic. A pattern of 8' x 8' and 8' x 12' modules was created, with the smaller intended for those at the GS-11 level and below and the larger intended for the GS-12 through GS-14 level. (This is not the place to philosophize about the role of



Old working space.



New working space.

status symbols in а democracy—GSA standards and corporate practice almost universally recognize them. Besides, those above the GS-12 level were perceived as needing more work room and more room for visitors and small conferences.) The two sizes were based on the naive assumption that the space planning staff could keep up with promotions: when someone was promoted from GS-11 to GS-12, an appropriate module could be created by converting three 8' x 8' modules in a row to two 8' x 12' modules. Of course, it did not work that way and probably could not have; the needs and operational patterns of the agency are not that orderly.

The offices on the perimeter of the building were another matter. Apparently since the building was built, the pattern had been to have two secretaries in an office with a window, flanked on either side by a 325-squarefoot office usually occupied by GS-15s or above. This far exceeded GSA space standards; a room-by-room survey revealed that it also far exceeded real needs. A design was devised whereby the perimeter offices were cut back to about 225 square feet, with the secretarial work station located on the corridor in front of the principal's office; in this way three principals and three secretaries were accommodated where two of each had been previously. It is sufficient to repeat that no part of the renovation program evoked such strong interest and response. (A sub-issue, "Who should get the

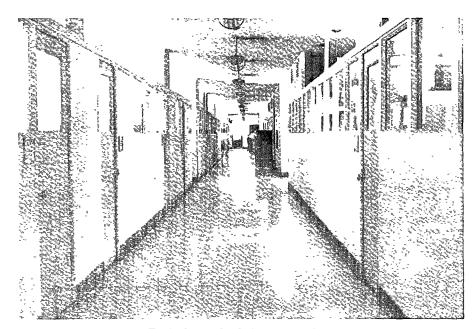
windows?", is much too volatile to discuss here.)

#### The Kind-of-Ceiling Issue

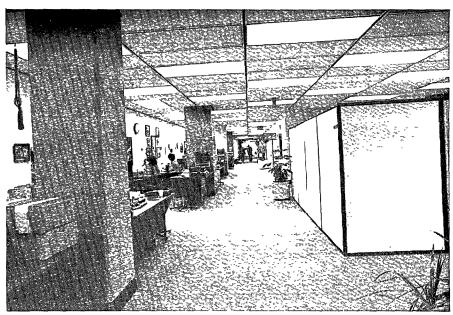
Only here did the tunnel vision of "we've always done it that way" become a major problem. GSA, which did the final design work and supervised the construction because of its custody of the building, was used to using the flat ceiling with recessed square lights that was typical at that time. It was relatively inexpensive to install but gave little flexibility as to light placement and provided no improvement in the air return problem. Coincidentally, a manufacturer introduced the ceiling now being used which has the air return ducts built in as small openings above the light fixtures and the air feed bars disguised in the black dividing channels between the flat panels; the recessed, coffered or dome effect of the light units also improves acoustical properties by trapping some of the ricocheting sound. Only detailed cost comparisons and the strongest persuasion applied to GSA permitted the installation of the ceiling we are now using—a ceiling that largely solved our air return problem and that has since become a standard in some new Federal buildings.

#### The Live Plant Issue

Emerging with the office landscaping concept and as a general sign of the times was the place-



Typical corridor before renovation.



 $Typical\ corridor\ after\ renovation.$ 

ment of live plants in working environments. There was a strong reaction from some quarters that this was frivolous and inappropriate to the austere-or business-like, if you prefer—image GAO should try to maintain. Although the dollar cost was relatively modest as a percentage of the renovation effort, the feelings were strong and persisted. The relatively restrained plant placement program has been continued throughout the projects and has been supplemented by many privately owned plants in private offices and on secretarial desks. Apparently most of the staff has come to accept and like the addition plants made to the appearance of the office environment.

# The "Should We Keep the Furniture?" Issue

A variation on the "Just give me a peach crate" theme, this suggested that the furniture that GAO had was still serviceable and, therefore, should be used in conjunction with the new partitioning, carpeting, and generally improved environment. However, the GSA personal property disposal program provided a mechanism whereby GAO's old furniture could be productively used by other Federal agencies, or, failing that, by a State or local government. In fact, the vast majority was taken by other agencies and either used "as is" or refinished; virtually all furniture was used productively by some other Government agency at some level.

These issues were rarely decided in a few minutes. Each required research. Each required careful consideration of possible employee, congressional, and public reaction. Each required keeping many GAO officials informed of the course we planned to take and the reason for it. Many required selling and persuasion.

It was in the framework of these decisions, which evolved over time, that the actual planning, design. construction, and occupancy took place. It would be nice to claim that this process was neat and orderly. It was not. Few actions by the space planning staff could take place independently. GSA had to complete its specifications and award contracts for ceiling and wall construction. GSA had to assure completion of construction in a timely manner; partitioning contractors had to deliver partitioning when specified; and the GSA Federal Supply Service had to provide thousands of pieces of furniture, not too early (because of the shortage of storage space) and not too late (because there would be nothing to sit on and no place to work). The carpet suppliers had to be on time or the modular office partitioning installation could not take place. The carpet installers had to be out of the way before the telephone and partitioning installers could proceed. Viewed in the abstract, this was pure project management, with a variety of tracking tools available to help out; viewed in the real world, it was a series of crises, delays, confrontations, and communications problems between contractors,

subcontractors, other suppliers, GSA, and the customer (GAO). Add to this lead times as long as 5 months for carpet and furniture delivery and 8 to 10 months for design—not construction, just design—of the projects by GSA, and an element of excitement quickly crept into the process.

#### Gray-Hair Days

Special days stand out in the minds of the staff (not more than five people) who at any one time oversaw and now oversee these projects:

A. The day the partitioning wasn't fireproof any more. The partitioning contract had clearly spelled out accepted Federal specifications for fire rating for the portable partitioning. Somewhat inexperienced in this kind of procurement, GAO did not insist on testing the partitioning actually delivered. It was only when a supplier's employee left his organization and moved to a competitor that we first heard the suspicion that the panels did not meet the fire-rating specifications. The suspicion proved to be well-founded. After much haggling and threats of legal action, the panels were replaced by the contractor.

B. The day the carpet disappeared. On one project tile-type carpet squares were used as an experiment. Installed on Friday, they were no longer there on Monday morning, having been carefully pulled up and stolen by someone. Of course replacement was the only choice.

C. The day the furniture disappeared. Very early in the life of the projects it became clear how much attention each staff member was paying to the amenities that each other staff member received; every action was scrutinized by several

"sidewalk superintendents," and each action became a precedent to be applied, sometimes retroactively, throughout the projects. A slight variation on this occurred with a high-level official who had perfectly good, but slightly used, furniture; upon discovering that his counterpart in another area was receiving new furniture, he simply contacted the laborer staff and appropriated the new furniture, already set in place, for his own use. This missing furniture was quickly tracked down by an amazed facilities staff and returned to its intended location.

D. The days the movers showed up but might as well not have. Every move, no matter how well planned, has its traumas, if only because of the uncertainties from the expected. None topped the temporary relocation of the Financial and General Management Studies Division to the Chester Arthur Building. Inexperienced help, too little help, and general failure by the contractor led to 14-hour workdays throughout the weekend and a move about 90-percent completed by Monday morning. Problems were corrected in a few days, but not without a residue of disappointment on everyone's part.

E. The day GSA changed the furniture choices. The "Office Excellence" program, originally touted as offering a large variety of metal furniture colors and fabric choices, quickly ran into trouble. Metal furniture color choices were quickly reduced to basic black or basic beige. Furniture top choices, once made up of several choices of simulated wood which could go with various metal colors, quickly became a single choice that went with black and a single choice that went with beige. Fabric colors and designs also changed, making continuity impossible when new pieces were required. Fortunately the conservative course of using only black metal furniture from the beginning reduced the appearance problem to the inability to match fabrics and tops.

While this renovation work has been going on in the headquarters office, work has continued in field offices, too. Virtually every regional and overseas office has been extensively remodeled in the last few years. The standards that have evolved there are a little different than those for headquarters, both because of the way the field offices work and because each building is different in the design challenge it presents.

Where do the projects go from here? At least an additional 70,000 square feet of space is assured in the GAO Building in the next few months. Relocation of the Office of

Personnel Development and Services, creation of a full-scale training facility, and relocation of some audit activities may all take place with that acquisition. Upgrading the design of some completed projects-both in the sense of interior decoration and in the sense of overall work-flow design and layout—is a certainty for the next few years. Continuing effort in the field offices is also assured. And, finally, the many small dayto-day space changes that do not even qualify as part of the major renovation projects that have been described will continue to be the concern of the Space Management Section, Office of Administrative Services.

#### Success

The price of success must continue to be diligence, effort, ability, concentration, and sweat. Sometimes we tend to confuse a guarantee of opportunity with a guarantee of success.

Jack L. Davidson

721807

# Standard Definitions: Missing and Needed Software Tools

This article discusses the need for standard definitions in the area of computer software.

The "software" (programs) that makes Federal computers run is now recognized as a management problem that is greater than the actual computers ("hardware") themselves. The ADP group of FGMSD—early to recognize the problem—has published several reports to the Congress on software problems, including "Acquisition and Use of Software Products for Automatic Data Processing Systems in the Federal Government" (B-115369, June 30, 1971), "Millions in Savings Possible in Converting Programs From One Computer to Another" (FGMSD-77-34, Sept. 15, 1977), and "The Federal Software Exchange Program—A Small Step in Improving Com-Program Sharing" (FGMSD-78-11, Jan. 13, 1978).

Terminology is a constant difficulty with audit work in the software area: the field is new, and terms mean different things to different people. Moreover, the field has moved so fast that standards organizations can't keep up. The most recent publication of standard definitions—the ANSI Vocabulary<sup>1</sup>—is now 8 years old.

To illustrate the many meanings software terms can have, I will use five: maintenance, conversion, modification, migration, and documentation.

A discussion of the software life cycle will set the stage for discussion of the definition examples. Figure 1 shows a perception of the software life cycle. A software system has an incep-

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<sup>&</sup>lt;sup>1</sup> ANSI, Vocabulary for Information Processing (X3.12-1970, FIPS-11), N.Y.: American National Standards Institute, Inc., 1970.

FIGURE 1
THE SOFTWARE LIFE CYCLE

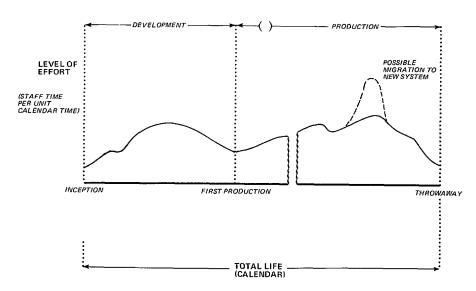
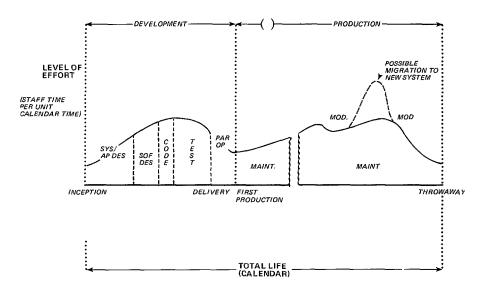


FIGURE 2
THE SOFTWARE LIFE CYCLE WITH DETAIL ADDED



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tion, a time at which it goes into production (hopefully soon after delivery); maintenance effort; modification efforts; possible migration(s) to a different hardware environment(s); and eventually throwaway. During the life, different levels of effort will be applied. The vertical axes of figures 1 and 2 measure level of effort in units of staff time per unit calendar time (for example, person-hours per week). The area under the level-of-effort curve in both figures is simply total staff time spent on the software during its life, i.e.:

# PERSON-HRS = PERSON-HRS-PER-WK times WEEKS

Figure 2 adds some detail to figure 1 to point out the delivery instant as the end of parallel operation with the predecessor system. For example, the first pay period when the new payroll system prints the checks "all by itself" is the delivery instant. Effort before this instant is development; later effort is post-development or post-first-production.

With this life-cycle view in hand we can proceed to discuss maintenance, conversion, modification, migration, and documentation.

#### **Maintenance**

The term "maintenance" can have different meanings for software. The first two shown below are from the ANSI Vocabulary; the others are mine.

- "Any activity intended to eliminate faults or to keep hardware or programs in satisfactory working condition, including tests, measurements, replacements, adjustments, and repairs."
- "See corrective maintenance, emergency maintenance, file maintenance, preventive maintenance, scheduled maintenance."

(The ANSI publication does not relate maintenance specifically to software.)

- Software maintenance is any work done on software after first production of user output.
- Software maintenance is any work done on software after first production of user output, except conversion.
- 5. Software maintenance is work done on software first production of user output in only these categories:
  - A. Making the software do what it was originally supposed to do, but which the delivered version did not do.
  - B. Fixing discovered errors in what it does.
  - C. Turning the software to make it do what it does more efficiently (less machine time, less core).
- D. Modifying it to do more or different end-user functions than it was originally supposed to do.

(A through D are roughly the same as #4 above.)

- Same as 5 above but A, B, C only —D would be separated from maintenance and called modification.
- Same as 5 above plus conversion. This, of course, gets us back to the "any work done" of #3, which includes conversion.

### Discussion of the Definitions of Maintenance

So, we now have several possible meanings for software maintenance, with attendant possibilities

for confusion in discussion and on contracts. Yet, even in everyday life, maintenance has different meanings. In automotive terms, maintenance can mean either "fix it when it's broken" (e.g., flat tire: repairs) or "maintain it so it won't break" (e.g., change the oil: preventive maintenance). Continuing the automotive idea. "maintenance" would not include such "changes to end user functions" as adding pollution equipment, adding a CB radio, or installing air shocks: these would be called "modifications" or "customizing." My opinions on the possible software maintenance definitions follow.

The ANSI definition is very hardware-oriented and I think it unsatisfactory for software. Using it for software would mean only fixing bugs (5B) above) although "replacements" and "adjustments" might be taken to mean modifications and tuning, respectively.

I believe that definition #4 above, which includes modification, but does not include conversion, is more commonly understood by "software people" than any of the others.

I would personally prefer to define three activities wherein

- —maintenance does not change what the software does for the end user,
- —modification does change what the software does for the end user, and
- —conversion moves the software to a different computing environment.

At any rate, a modern standard definition of what is included in software maintenance would be useful.

#### Conversion and Migration

#### Views of Conversion

Software conversion is a subject of considerable interest nowadays because of its impact on the evaluation of hardware procurement alternatives. However, my discussion here makes no prescriptions for treating conversion in procurements and none should be inferred from it.

Applications software is converted in two situations:

- 1. When an installation wants to move its entire applications software inventory to another computing environment, e.g., to replacement hardware.
- 2. When an installation wants to bring in a program that was written elsewhere to avoid developing its own (i.e., the software sharing situation).

Figure 3 shows a view of the first situation, figure 4 a view of the second. In figure 3 a given installation moves "everything" to a new environment; in figure 4 a program or set of programs is moved from one installation to another with both installations' hardwares and inventories probably remaining otherwise the same afterward.

#### Possible Definitions of Conversion?

The ANSI vocabulary contains

#### FIGURE 3 A VIEW OF A TYPICAL INSTALLATION'S MIGRATION TO ANOTHER COMPUTING ENVIRONMENT

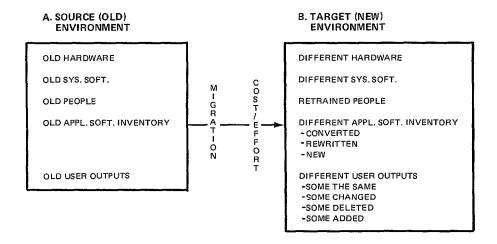
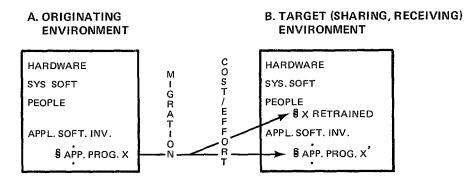


FIGURE 4 A VIEW OF SOFTWARE SHARING



neither the word "conversion" nor the phrase "software conversion."

The GAO software conversion

report says on p. 1:

"One part of software cost that is large and not directly productive is called conversion cost. This is incurred to make programs devised for one computer work on another computer of a different make or model."2

<sup>&</sup>lt;sup>2</sup> GAO, "Millions in Savings Possible in Converting Programs From One Computer to Another" (FGMSD-77-34, Sept. 15, 1977), Washington, D.C., U.S. General Accounting Office.

"Software conversion is the act of making computer programs run on some computer other than the one for which they were originally devised. \* \* \* "Application programs are converted when

1) a replacement computer has been acquired and

2) where it is desired to share a program that was written at another place."<sup>3</sup>

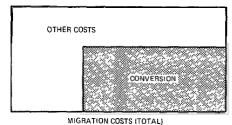
### Discussion of the Available Conversion Definitions

Referring again to figure 3—the change of computing environment—I would like to bring up another term, migration, shown in figure 5. Thus, we will now speak of the total costs to get from the old to the new environment as migration costs. Included within migration costs are conversion costs; whether or not the two are synonyms depends, of course, upon one's definition of conversion costs.

An installation will often have applications written in FOR-TRAN, COBOL, assembler, and DBMS. So far, the first three

#### FIGURE 5

A VIEW OF THE COSTS OF AN INSTALLATION MOVING TO A REPLACEMENT SYSTEM



dominate in the Federal Government. During the migration from the old to the new environment, many different activities often go on. For example, COBOL programs and their files may be modified just enough to make them work on the new system, FORTRAN programs likewise (with attendant precision considerations4), and assembler programs may be rewritten in the assembler of the new system or in a higher level language. People disagree on what activities shall be included in costs of conversion. and on how broad a meaning the term "conversion" should have. So I use the broader term, "migration," including, but not solely, conversion. I personally prefer to divide migration somewhat along these lines:

- —Site preparation.
- -Redesign of programs and applications.
- —Rewriting of programs (e.g., assembler).
- -Conversion (e.g., COBOLto-COBOL, FORTRAN-to-FORTRAN).
- -Training (ADP people).
- —Training (users).

I can illustrate a couple of points with a small example. Figure 6 shows a small FOR-TRAN program which adds up real numbers and prints their

<sup>&</sup>lt;sup>3</sup> Ibid., p. 1

<sup>&</sup>lt;sup>4</sup> Precision in this context means the number of digits in a numerical result. Different brands of computers may, by default, yield different precision in FORTRAN results, due to their different internal construction.

average. 6A is the IBM implementation. I claim that moving it to a CDC66005 environment as shown in 6B is conversion—changing it only enough to make it give the same answers in its new environment. I claim that changing it to the CDC version shown in 6C is both conversion and redesign because changing it thus adds new user outputs. (And I have avoided treating precision by clever choice of an example: IBM single precision is enough in the original version, and by moving to a CDC machine, I maintain adequate precision, and need do nothing about it.) Clearly, both 6B and 6C are not complete rewrites, since most of the code is the same as it was in 6A. Clearly. also, the job control language (JCL 6) would be completely different for situations 6B and 6C from that in situation 6A (SCOPE <sup>7</sup> instead of IBM JCL <sup>8</sup>).

However, the real world does not contain many (any?) migration situations which are as clean as my simple example. A plethora of needs or desires besides COBOL-to-COBOL conversion may complicate the migration to the new system. Examples include using disks on the new system instead of the tape used on the old, using computer output microfiche and/or video terminals instead of paper output, redesigning batch-mode applications to be real-time, and adding new applications. Some of the many activities involved can readily be labeled "conversion costs," while others cause much argument. A firm which is in the "conversion business" refers to "system transformation services." They have another term for the software sharing situation, "translocation."

I would personally prefer to separate conversion from other migration costs. The "straw person" definition below is rooted in this preference and my desire for as clean a definition as possible. I think it can apply equally well to the change-of-equipment and the software sharing situations.

Software conversion is work done to make software duplicate the end-user results from the same inputs on the target computing environment ("new computer") that it produced on the original computing environment ("old computer").

Qualifiers could include "with a major part of the human-readable source text unchanged" or, "This does not include complete recoding from the flow charts of the original environment," to clearly rule out recoding of assembler applications in a different assembler or rewriting a FORTRAN program in ALGOL. I do not personally wish to call either of those two "conversions"; one might call them "design mig-

<sup>&</sup>lt;sup>5</sup> Control Data Corporation 6600.

<sup>&</sup>lt;sup>6</sup> A job control language is a "language" of control statements which the programer must use to direct the computer to run his/her program. Each manufacturer's is different.

<sup>&</sup>lt;sup>7</sup> SCOPE: Supervisory Control of Program Execution—a CDC JCL.

<sup>&</sup>lt;sup>8</sup> JCL: Job Control Language—IBM's own JCL.

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```
6A. IBM VERSION:
C - - PROGRAM TO CALCULATE & DISPLAY THE AVERAGE OF A GROUP
      OF REAL NUMBERS.
      1) PRECISION: SIX DIGITS IS ENOUGH 2) VARIABLE TYPING:
C
         DEFAULT 4) DATE WRITTEN JAN 78.
       5) ENVIRONMENT: IBM 370-145; WATFIV COMPILER
      6) KNOWN LIM'S: LARGEST INPUT NUMBER 99999. W/ DEC PT.
          EXPLICITLY PUNCHED; 9999.99 W/ DEFAULT ;; 1000
С
          INPUT NUMBERS MAX.
C
      DATA SUMREL /0.0/, COUNT /0.0/
С
      DO 33 I = 1, 1000
READ (5, 10, END = 999) RELNUM
         SUMREL = SUMREL + RELNUM
COUNT = COUNT + 1.0
   33
          CONTINUE
C
  999 CONTINUE
      AVERAG = SUMREL/COUNT
      WRITE (6, 20) AVERAG
STOP
C - - - INPUT
   10 FORMAT (F6.2)
  - - - - OUTPUT
   20 FORMAT (1H0, 12HAVERAGE IS , F8.2)
6B. CDC VERSION/SAME USER OUTPUT:
      PROGRAM RELSUM (INPUT, OUTPUT, TAPE5=INPUT, TAPE6=OUTPUT) CCC
\mathbf{C}
  - - PROGRAM TO CALCULATE & DISPLAY THE AVERAGE OF A GROUP
С
      OF REAL NUMBERS.
С
      1) PRECISION: SIX DIGITS IS ENOUGH 2) VARIABLE TYPING:
C
      DEFAULT 4) DATE WRITTEN JAN 78.
5) ENVIRONMENT: CDC 6600; CDC 6000 FORTRAN EXT. COMP
C
c
c
                                                                     CCC
      6) KNOWN LIM'S: LARGEST INPUT NUMBER 99999. W/ DEC PT.
C
         EXPLICITLY PUNCHED; 9999.99 W/ DEFAULT ;; 1000
C
         INPUT NUMBERS MAX.
Ċ
      DATA SUMREL /0.0/, COUNT /0.0/
С
      DO 33 I = 1, 1000
         READ (5, 10) RELNUM
IF (EOF) 999, 331
                                                                    CCC
                                                                    CCC
         CONTINUE
                                                                    CCC
  331
         SUMREL = SUMREL + RELNUM
         COUNT = COUNT + 1.0
   33
         CONTINUE
С
  999 CONTINUE
      AVERAG = SUMREL/COUNT
      WRITE (6, 20) AVERAG
STOP
C - - - INPUT
   10 FORMAT (F6.2)
 - - - OUTPUT
   20 FORMAT (1HO, 12HAVERAGE IS , F8.2)
```

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#### 6C. CDC VERSION/ CONVERSION AND REDESIGN: PROGRAM RELSUM (INPUT, OUTPUT, TAPE5=INPUT, TAPE6=OUTPUT) CCC C С - - PROGRAM TO CALCULATE & DISPLAY THE AVERAGE OF A GROUP OF REAL NUMBERS, AND THEIR MAX AND MIN. RRR CCC MOD #1: MAX & MIN ADDED JAN 21, 78 1) PRECISION: SIX DIGITS IS ENOUGH 2) VARIABLE TYPING: RRR DEFAULT 4) DATE WRITTEN JAN 78. CCCC 5) ENVIRONMENT: CDC 6600; CDC 6000 FORTRAN EXT. COMP 6) KNOWN LIM'S: LARGEST INPUT NUMBER 99999. W/ DEC PT. CCC EXPLICITLY PUNCHED; 9999.99 W/ DEFAULT ;; 1000 С INPUT NUMBERS MAX. DATA SUMREL /0.0/, COUNT /0.0/ AMIN = +99999999. RRR AMAX = -99999999.RRR С DO 33 I = 1, 1000READ (5, 10) RELNUM IF (EOF) 999, 331 CCC CCC CCC 331 CONTINUE SUMREL = SUMREL + RELNUM COUNT = COUNT + 1.0 IF (AMAX .LT. RELNUM) AMAX = RELNUM IF (AMIN .GT. RELNUM) AMIN = RELNUM RRR RRR 33 CONTINUE С 999 CONTINUE AVERAG = SUMREL/COUNT WRITE (6, 20) AVERAG WRITE (6, 30) AMAX, AMIN RRR STOP C - - - INPUT 10 FORMAT (F6.2) C - - - OUTPUT 20 FORMAT (1H0, 12HAVERAGE IS , F8.2) C --- EXTREME VALUES RRR 30 FORMAT (1HO, 8HMAX IS , F8.2, 8HMIN IS , F8.2) RRR : FIGURE 6. THREE VERSIONS OF A FORTRAN PROGRAM : : CCC = Lines converted from 6A RRR = Lines considered redesigned : from 6A :

rations" as well as "rewrites." One can easily think of complications in applying the above definition: for example, is it still conversion (as above) if we "duplicate the end-user results" onto computer output microfilm (COM) instead of paper?

Concerning migrations and conversions, I would certainly include revisions to embedded documentation (comments), such as those done in moving from figure 6A to figure 6B, in conversion costs. Which brings us to documentation.

#### **Documentation**

#### Some Definitions

Definitions of documentation include:

#### 1. From ANSI:

"documentation

- The creating, collecting, organizing, storing, and disseminating of documents or the information recorded in documents.
- 2) A collection of documents or information on a given subject."

"software

A set of computer programs, procedures, and possibly associated documentation concerned with the operation of a data processing system, e.g., compilers, library routines, manuals, circuit diagrams. Contrast with hardware."

#### 2. GAO conversion report (p. 21):

"—documentation, which is material prepared to explain a computer program. Documentation is human-readable material over and above the actual code which drives the computer."

## 3. GAO "Working Glossary of Software Terms":9

"Documentation: Narrative, schematic, or tabular material which accompanies a computer program or is embedded in it. Computer program documentation has the purposes of recording and explaining:

- —The development of a computer program.
- —The way in which it was constructed, including important decisions between alternatives.
- —The way it is intended to operate in normal, frequently encountered circumstances.
- —The way it is intended to operate in abnormal or infrequently encountered circumstances.
- —What tests have been made to verify its correctness.

"Computer program documentation may be internal to the program in the form of:

- —Embedded comments or remarks (English which appears among the actual program statements but does not affect the operation of the program).
- —Self-descriptive, programer-chosen names for variables and procedures.
- —Well organized, 'structured' organization of the actual program statements themselves.

"Or external to the program in the form of:

- -Flowcharts.
- -HIPO charts.
- -Structure charts.
- -Narrative.
- -Decision tables."

<sup>&</sup>lt;sup>9</sup> GAO, "A Working Glossary of Software Terms," Washington, D.C.,U.S. General Accounting Office, October 1977, pp. 5-6.

## 4. Merritt trial definition for this paper:

Software documentation is narrative, tabular, or graphic material accompanying, or embedded in, computer programs to explain their products, inputs, operation, actions, limitations, and underlying assumptions and dependencies to humans.

#### 5. FIPS PUB 38:10

"Documentation provides information to support the effective management of ADP resources and to facilitate the interchange of information. It serves to:

- —Provide managers with technical documents to review at the significant development milestones, to determine that the requirements have been met and that resources should continue to be expended.
- Record technical information to allow coordination of later development and use/modification of the software.
- —Facilitate understanding among managers, developers, programmers, operators, and users by providing information about maintenance, training, changes, and operation of the software.
- —Inform other potential users of the functions and capabilities of the software, so that they can determine whether or not it will serve their needs."

#### Discussion of the Definitions

ANSI #2 could be used to say, "Software documentation is a collection of documents or information on a given collection of computer software." I do not think most people include documentation in the word "software," which ANSI indicates as a possibility.

The GAO definitions and my definition *could* include documentation in "software" since they both say "explain computer programs"; if so, this would express the view that

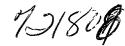
"SOFTWARE" equals "PRO-GRAMS" plus "DOCUMEN-TATION"

However, I prefer to think of documentation as separate from software and I think most people do. My trial definition could be made shorter by ending it "to explain them to humans"; certainly less verbose, and perhaps less prescriptive. I believe that FIPS', GAO's, and my definitions agree pretty well. The FIPS guideline definition would be a standard if the guideline were raised to standard status.

#### Summary

I have only touched upon software terminology. Much work and education are needed to solve its problems. Meanwhile, we must be very careful when we use these and other terms.

<sup>&</sup>lt;sup>10</sup> U.S. Department of Commerce/ National Bureau of Standards, Guidelines for Documentation of Computer Programs and Automated Data Systems (FIPS PUB 38), February 1976, p. 5.



#### Works of Art at GAO

Our austere headquarters building is enlivened by sculptures at the south entrance and both lobbies and by a mural on the seventh floor.

Today, examples of modern abstract sculpture decorate many public and private commercial and institutional buildings in Washington and other American cities. These angular, geometric objects in stone or metal are quite aesthetic from a modern viewpoint and require the observer to use his imagination, reading into them anything he likes.

But in the 1950s and earlier, much art represented a more realistic approach to people and objects. Such are the bas-relief sculptures that decorate the rounded portals of the south entrance to the GAO building. (A detailed section of the left panel is portrayed on the front and back covers of this year's GAO Review.)

A second example of such relief sculptures is the 8 aluminum panels that decorate each of the 10 elevator doors in the south and north lobbies of the nearly block-long structure of buff limestone between G and H Streets and 4th and 5th Streets in northwest Washington.

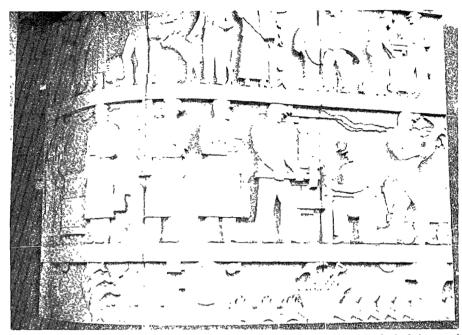
#### Carved in Granite

Designed by two prominent American artists in the early fifties, the relief sculptures carved in the red granite marble at the south entrance and the lobby elevator doors are supplemented by an example of pictorial art in the form of a large mural by Mitchell Jameson, a noted painter, on the north wall of the Comptroller's conference room on the seventh floor.

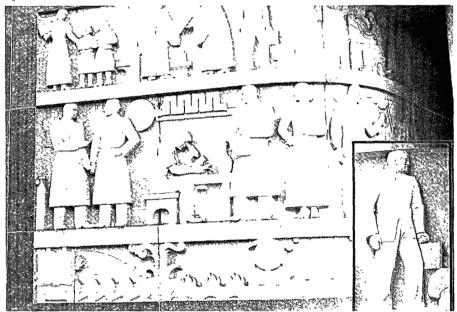
The sculptures and the painting were all highly praised by the Fine Arts Commission, which advises the President, the Congress, and Government agencies on designs of public buildings and parks.

The two relief sculptures on the rounded portals that curve around

Mr. Rosapepe is GAO's Deputy Information Officer. He studied in Europe and at Kenyon College and Youngstown State University in Ohio, where for 6 years he served as art critic on an Ohio newspaper. He joined GAO in 1972 after 10 years at IRS. He previously served as director of information at Case Institute of Technology and the Investment Company Institute in New York.



Themes represented on the right side of the GAO G St. entrance include labor and agriculture.



Science and education are depicted on the left side of GAO's G St. entrance.

the south entrance are 15-by-9-foot panels and are carved into the red granite trim that surrounds the entire limestone building.

The carved surface of the curved panels seems almost pink because of the sandy surface left when the stone masons transferred the sculptor's clay model to the permanent granite stone.

The two panels, entitled the "American Laborer" on the right side of the entrance and "American Professional Workers" on the left, consist of 30 figures representing American men and women at their various occupations.

Here is the way James M. Goode, author of "The Outdoor Sculpture of Washington," describes the work of Joseph Kiselewski, an eminent New York sculptor, in the technical language of the art expert.

The carvings are organized into three tiers of different heights with the central tier predominating. The figures are stylized, executed in the simplified rectilinear Art Deco manner, and organized into a limited number of planes. The conception of each figure is generalized and impersonal, and much use is made of conventionalized symbols.

The bas-reliefs are purely decorative in intent, providing an especially rich textural surface to define the entrance area. They are subordinated to the architecture to the extent that nearby columns almost obliterate the inner section from view.

#### Man With Briefcase

One of the most interesting figures—and relevant to GAO—is

the "man with the briefcase." The Washington Evening Star, in its report of the sculpture's unveiling in April 1952, said:

The brief case boys, familiar figures on the Washington scene, have been immortalized in sculpture. One of their number forms part of two sculptured panels flanking the south entrance. Toting his brief case he is carved in enduring granite.

The story in the *Star* referred to "the various activities of Government on which the GAO rides herd." The man with the briefcase symbolized the business actions of Government and the Government's relations with private business.

The man with the brief case may be regarded as harrassed business man summoned before a congressional committee. Or a happy businessman with a Government contract in the brief case. Or a Government official on his way to a policy making huddle with other officials.

Officials of the Public Buildings Service of the General Services Administration, which supervised the design and construction of the GAO Building and its relief sculptures, at the time claimed credit for the symbolism, which they said was outlined by GSA.

#### Minnesota Artist

Kiselewski, creator of the entrance sculptures, is a native of Browersville, Minnesota, who studied in New York, Paris, and Rome. He has created many murals throughout the United States. His works include the pediment

depicting fishing at the Commerce Department in Washington, a statue of George Rogers Clark in Vincennes, Indiana, and sculpture for the Bronx County courthouse in New York.

A sculpture contract for the entrance to the north side of the GAO Building was awarded to Lee Lawrie, noted U.S. sculptor, who was once an instructor of Kiselewski. The bas-reliefs, which were to represent many various aspects of American life, were never carried out because of lack of funds.

Lawrie, a native of Germany, settled in Easton, Maryland, and won many awards and honors for his sculptures. These included the heroic statue of Atlas in Rockefeller Center and the statue of George Washington for the Washington Cathedral.

#### Cast in Aluminum

Completely different are the aluminum bas-relief panels on the elevator doors of the north and south lobbies of the GAO Building. Eight panels on each door symbolize themes of American society, including freedom of speech, freedom of religion, liberty, spirit of laws, national security, internal development, national ideology, and justice.

Each of the panels is shiny aluminum, 18 inches high and 12 inches wide. They are repeated on each of the 10 elevator doors in both the north and south lobbies. Around the framework of the sliding doors are smaller 6-inch and

8-inch decorative panels which represent rain, sunlight, hydrography, geology, snow, wind, energy, and astronomy.

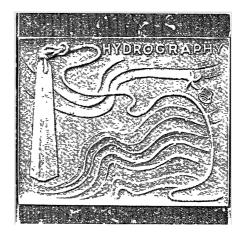
These bas-relief sculptures were done by Heinz Warneke, a native of Germany, who came to the United States in 1925 and later became a professor of sculpture at the Corcoran School of Art and at George Washington University. His works include the War Memorial in Lynn, Connecticut, and sculpture in the Washington Cathedral.







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# **Delineated in Pigment**

The third example of fine art in the GAO Building is the mural on the north wall of the Comptroller General's conference room on the seventh floor.

Entitled the "Beauty and History of Dare County," it depicts scenes of the North Carolina coast area, the home of Lindsay Warren, third Comptroller General and eight-term Congressman.

Painted in 1954, the mural, 18 feet long and 10 feet high, was described by Mr. Warren in this way:

The mural depicts the restored Ft. Raleigh, the cradle representing Virginia Dare \* \* \* ; \* \* \* the Atlantic Ocean in a storm; the Dare County courthouse; Kill Devil Hill and the Wright Memorial; the Oregon Inlet Coast Guard station; the Wright plane and the first flight; a fisherman's cottage with the nets hung out to dry; gulls; a large piece of driftwood; shells on the beach; the ocean in calmer mood with an old wreck on the beach; Jockey's Ridge and sand dunes; Pamlico Sound and fish houses and fish boats; Cape Hatteras Lighthouse; sea oats and willets on the beach. In the lower right hand corner a bottle is washed up on the beach and the artist has placed his name on it [which happens to coincide with the Irish whiskey Jame-

Mitchell Jameson probably was the most colorful of the artists represented in the GAO Building. A native of Kensington, Maryland, a suburb just north of Washington, he studied at the Corcoran and in Italy and Mexico City.



Winner of many honors and awards, Jameson was a combat artist in World War II, the Korean conflict, and the Vietnam War, where he did many battle scenes. He painted many murals for U.S. post offices and other public buildings and traveled in 17 countries, making many drawings and paintings for *Life* Magazine.

His promotion to a full professorship at the University of Maryland was delayed because of a letter he wrote criticizing the university for suspending students who protested in campus demonstrations. Jameson apparently was strongly affected by what he experienced in Vietnam, entitling a series of drawings from that front "The Plague." It was reported that these memories affected him so painfully that they contributed to his suicide in 1975.

Jameson's mural and the basrelief sculptures by Kiselewski at the south entrance and by Warneke on the elevator doors add an aura of artistic beauty to the austere lines of the marble, granite, and plaster walls at the GAO Building.

#### Press On

Nothing in the world can take the place of persistence. Talent will not: Nothing is more common than unsuccessful men with talent. Genius will not: Unrewarded genius is almost a proverb. Education alone will not: The world is full of educated derelicts. Persistence and determination alone are omnipotent.

President Calvin Coolidge

JACQULYN MULLINS

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# A Summary of Actions Taken by the AICPA to Improve the Accounting Profession

The House Subcommittee on Oversight and Investigations held hearings early in 1978 to determine whether legislation should be introduced to establish additional forms of Federal regulation of the accounting profession. The outcome of these hearings should be of interest to all members of the accounting profession regardless of whether employed in the public or private sector.

The American Institute of Certified Public Accountants (AICPA), which promulgates standards for the accounting profession, is of the opinion that such legislation is unnecessary and would be counter-productive. To support this opinion, the AICPA submitted a formal statement to the Subcommittee outlining the steps which the AICPA has taken over the past months to respond to recommendations for improvements made by a number of sources. This article summarizes the major points contained in this statement which is entitled "Report of Progress: The Institute Acts on Recommendations for Improvements in the Profession."

The statement discusses four types of actions taken by the Institute, broadly categorized as follows.

- Regulation of CPA firms.
- Discipline of individual CPAs.
- Independence of auditors.
- Auditing standards and performance.
- Other matters.

A limited explanation of each of these categories is provided below

# Regulation of CPA Firms

The AICPA has established a new division to provide an organizational structure through which regulatory requirements and sanctions can be imposed on CPA firms. This division is made up of two sections, one for SEC practice and another for private companies' practice. Participation in both sec-

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tions is strictly voluntary and is open to all CPA firms.

Firms joining the SEC practice section are subject to the following requirements:

- Mandatory continuance of professional education of 40 hours a year for all professional staff.
- A mandatory peer review of the firm's quality controls at least every 3 years and at such other times as may be imposed as part of a disciplinary action.
- Imposition of sanctions on firms found to be deficient in meeting the AICPA quality control standards or other requirements.
- Annual filing of relevant information about the firm for inclusion in files open to public inspection.
- Maintenance of legal liability insurance coverage as prescribed by the executive committee of the section.

A vital element of the self-regulatory plan of the SEC practice section is the appointment of a Public Oversight Board composed of five individuals from outside the accounting profession. The Board will monitor the operations of the SEC section and, at its own discretion, report any information, findings, views, or recommendations to the executive committee of the section, SEC, the congressional committees, or the public at large.

The section for private companies' practice is largely parallel with the SEC practice section except that the requirements reflect the different needs of the type of clients being served. Objectives of this section are to improve the performance of practitioners, facilitate participation by smaller firms in the affairs of the profession, and develop ways to tailor technical

standards to fit the circumstances of smaller and/or privately owned businesses.

# Discipline of Individual CPAs

Measures adopted by the AICPA to enhance its effectiveness in disciplining individual-member CPAs include:

- The publication of the names of all members found guilty of violations of the code of professional ethics.
- Periodic publication of statistical summaries of the status of all pending disciplinary matters.
- Studying of additional ways in which the disciplinary machinery might be made more responsive by operating more fully within the public view.

The AICPA is of the opinion that these measures, coupled with existing SEC regulations, disciplinary actions by State boards of accountancy, and the pressures stemming from civil lawsuits against CPA firms should be more than sufficient to assure a high level of audit performance. Consequently, Federal legislation should not be necessary.

### Independence of Auditors

An area of growing public concern is whether CPA-client relationships are truly independent. This is a difficult assessment to make since independence is basically a mental attitude and thus difficult to measure. Because of this the independence of the CPA is often judged upon the appearances of relationships with clients.

In order to safeguard the accounting profession's independence in both fact and appearance, the AICPA has developed a comprehensive program to minimize pressures on auditors and help preserve their independence. This plan contains the following major provisions:

- Appointment of a special AICPA
   Committee to stimulate the creation
   and use of audit committees by cor porations. This committee will study
   whether and how the AICPA can im pose a requirement for a publicly
   held company to have an audit com mittee as a condition precedent to
   the auditor's expressing his opinion
   on the company's financial state ments.
- Strong endorsement of the proposition that auditors be engaged by a corporation's board of directors or audit committee and that fee matters be dealt with by one of those bodies rather than by management.
- Consideration of means of requiring attendance by auditors at shareholders' meetings to respond to questions relating to the audit and financial affairs of the corporation.
- Determination of ways to implement the SEC recommendation that the substance of present information on auditor changes now required for SEC 8-K reports should also be disclosed in the annual reports of public companies. (This information relates to disagreements between management and the former auditor on accounting principles, financial statement disclosures, or audit scope.)
- Adoption by the SEC practice section for CPA firms of a number of requirements that are designed to protect the independence of auditors of SEC registrants. These requirements range from reporting dis-

agreements with management on accounting or auditing matters to a proscription on performing certain types of management consulting services for SEC clients.

The AICPA believes that the implementation of the above measures should prevent lack of independence from being a contributing factor to audit failures.

# Auditing Standards and Performance

Ten major actions are underway by the AICPA to improve the effectiveness of audits. The following is a brief summary of these actions.

- A special committee has been appointed to study audit standards setting and to recommend changes which should be considered in the way auditing standards are established.
- An intensive study of proposed modifications of the standard auditor's report is being conducted. The most significant proposal relates to the development of a revised auditor's report that will more effectively communicate the auditor's role and responsibilities using less technical language.
- A standard has been adopted which requires auditors to report material weaknesses in systems of internal control noted during the normal course of an audit to the client's board of directors or its audit committee. Also, the concept has been endorsed that auditors should review and publicly report the SEC client's systems of internal control. A special advisory committee is working on the development of criteria for

evaluating systems of internal control for purposes of public reporting.

- The AICPA has endorsed the concept that financial statements should contain a separate footnote describing uncertainties. This matter is being studied and recommendations will be made for implementing such a requirement. Also, a special committee has been appointed to develop examples of such footnotes and to define the role of lawyers with respect to disclosures on uncertainties caused by litigation.
- A recommendation has been accepted that corporate managements adopt policy statements on conduct expected of their companies' personnel and that auditors, as a separate service, review and report on management's actions to assure compliance with its policy statement. Standards will be developed for such reviews and reports, and a special committee has been appointed to develop a model for policy statements on conduct.
- The AICPA has agreed that a report by management indicating the responsibilities it assumes should be included with financial statements. A special committee will develop the suggested form and content of such a report.
- Statements on Auditing Standards Nos. 16 and 17 have been issued to define more clearly the duties and responsibilities of auditors in searching for and detecting fraud, errors, and irregularities affecting financial statements and illegal acts by clients. Also, a committee has been appointed to monitor and publish, on a continuing basis, analyses of the types of frauds and audit failures that are encountered in practice.
- The Accounting Standards Executive Committee has been directed to

- develop criteria to determine when departure from generally accepted accounting principles is required, due to unusual circumstances, so that financial statements will not be misleading.
- A committee has been appointed to study the relevance of applying to smaller and/or privately owned companies all the same accounting standards required for public companies.
- A new senior technical committee has been established to set standards for accounting and review service engagements involving unaudited financial statements. An exposure draft of proposed standards with respect to the association of CPAs with unaudited financial statements is expected to be released early in 1978.

It is anticipated that the above changes will be phased in over a period of time in consultation with SEC.

#### Other Matters

It has been suggested that activities of the AICPA should be made more open to the public and that the number of representatives from the large firms serving on Institute committees should be reduced to ensure greater representation of practitioners from smaller firms. Acting on these suggestions the AICPA has taken the following actions.

 A proposal has been submitted to AICPA members for vote, which would amend the AICPA bylaws to permit the addition of three public representatives as members of the board of directors and council.

- Representation from the eight largest firms has been reduced to five or less on each senior AICPA committee. All such committees have 15 or more members, and their decisions require either a majority or two-thirds vote.
- The AICPA has concurred with the removal of its authority to appoint the trustees of the Financial Accounting Foundation (the body that appoints the members of the Financial Accounting Standards Board).
- Starting January 1, 1978, the meetings of nine AICPA senior committees and the governing council, including all deliberations and voting on professional policies and technical standards, are to be open to the public.
- A comprehensive reexamination has been made of all AICPA rules of conduct that might be challenged as not serving the public interest. Accordingly, the AICPA has proposed to its members that the rule prohibiting advertising and solicitation be modified to remove virtually all restraints except those forbidding deception and false statements. Critics had expressed concern that this rule restrained competition among firms

and interfered with the public's right to information. In addition, modification of the rule prohibiting incompatible occupations and repeal of a rule prohibiting the initiation without prior notice of employees of other CPA firms are being proposed.

### **Summary and Conclusion**

The AICPA is proposing and implementing drastic changes in both its organization structure and the standards which it prescribes. These changes are being made in an environment of increased public concern about the reliability of financial reporting and the independence of CPAs. It is the Institute's contention that such measures will be responsive to the public's needs and thus eliminate the necessity for any type of governmental oversight. It will be interesting to see how successful the Institute's efforts at self-regulation are in staving off the threat of Federal regulation of the accounting profession.

# A Commonsense Approach to Writing Reports\*



This article presents some fresh thoughts on how to go about writing reports. The author's pitch is toward the thinking part of the job—thinking out the issues as well as a logical way of presenting them. The author encourages a conscious strategy for planning, actually writing, and later testing the written product.

The concepts are based on what has been tried and found successful in practice in the Detroit regional office. The author acknowledges his indebtedness to members of the Detroit staff—especially to C. H. Moore, regional manager, who encouraged and contributed greatly to this article.

Staff member: "\* \* \* pardon me

EDITOR'S NOTE This is a reprint of an article in the winter 1972 issue of *The GAO Review*.

\* \* \* but how do I go about writing this report?"

Supervisor: "What's the matter? Haven't you read the Report Manual? You know, that redcolored book?"

Staff member: "Er \*\*\* yes, yes of course, I read every page, but \*\*\*."

Supervisor: "Well then \*\*\* and just use one of those other reports and \*\*\*."

Staff member: "But isn't there a better way? I mean, I tried to read that \* \* \* and this is an unusual case \* \* \* and \* \* \* ."

# Just How Do You Go About Writing a Report?

This paper is an attempt to fill a need of the average auditor for some simple, down-to-earth guidance on writing reports that "communicate." An underlying

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premise is that a report "communicates" when certain principles of good communication are observed-either consciously or unconsciously-in its delivery. The process may have been costly. The writer may have consumed a lot of precious time and gotten frustrated and frantic because trial and error was used to arrive at the final product. Or perhaps the writer had a satisfying experience because he consciously followed a logical approach—he had a strategy in mind-in identifying and laying out what he wanted to

Now that we've got your attention—*Think* along with us in a step-by-step account of how to actually go about writing a report.

#### Step 1

Begin by finding your message—something important to tell "your world," something worthy of your time and effort.



One of the most difficult things to do is sit down and begin writing. Trying to get started—or being half-hearted in an attempt—can account for a lot of lost motion. If you find yourself groping, it's probably because you haven't done enough real soulsearching. You're not ready to write because you don't have anything to say. You're not inspired. You lack conviction about the subject matter. You need a message—a central unifying theme.

Once you "zero in" on the message, the job will take on new meaning. The message gives purpose for everything else that goes on in an audit. And it will become the unifying theme of the report. You can't write a good report until you've found the message, but—ironically—you can't continue effectively in an audit until you've made this same discovery. Hence the importance of finding the message early!

Admittedly, there's danger in getting committed to a way of thinking too early. But there's greater danger in not getting committed at all. The survey phase of an audit is the appropriate time to come to grips with the issues and form your convictions. You should have something in mind when you begin the survey—when you do the spadework. After that preliminary probe, a message must be conceived or there's no purpose in continuing. Muddling through a review without a conscious objective in sight won't do. The message must be visualized and forecasted.

The exact way in which a message is identified may vary. Usually it will involve perspiration—

and perhaps a bit of inspiration. It may start with a personal conviction—complemented by a knowledge of the facts. Regardless of the method applied in bringing about the moment of truth, the following are some techniques which should assist in gaining better focus on the message:

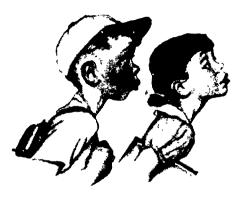
- —Brainstorming and open discussion among staff members,
- —Challenge and input from persons independent of the job,
- —Exposure to the thinking of top managers within the office and from "experts" on the outside, and
- —Simply through putting pencil to paper.

Once identified, the message needs to be put down on paper. A good technique is to write it out in digest form at the close of the survey. It should be crisp and clear-with no chance for misinterpretation. Then, make sure it's approved and accepted by everyone in the responsibility chain before proceeding. In this way, the job can be built around the message. (The need for some reshaping and recasting as the job proceeds is, of course, recognized.) Direction can be given to the entire staff. The goal will be in view. It's the way to integrate reporting with audit planning and execution.

#### Step 2

Build your message on a foundation of logic.

A bare message is not enough it may be right but it won't be



convincing. You have to fill the reader's mind with pictures, facts, and details that will add up to what you want to say. You will soon discover that getting across your message is a venture in the art of persuasion. You must give your reader enough evidence to convince him that you're a man of reason and that what you say is true. To do this, you'll need some logical arguments, a rationale. specifics, perhaps a few statistics or examples, maybe comparisons and contrasts, graphs, pictures, charts, etc.—an assortment of carefully selected devices to help the reader think along with you.

The basic message itself is usually an overriding conclusion—a generalization. For example: "Water pollution is becoming a critical national problem—more Federal involvement is necessary."

All of us rely on generalizations every day of our lives—but some generalizations are more reliable than others. Generalizations are important to good writing because they sum up our position—they help us tell it like it is. Yet our generalizations must be backed up with facts—evidence compatible

with the strength of the convictions we convey. The process of drawing general conclusions from individual observations is known as "inductive reasoning." We use it a lot in reporting:

- —Over 800 million tons of toxic waste are being dumped into our Nation's waters each day.
- —No institution or governmental authority has control or jurisdiction over the problem—State and local governments lack money and authority.
- —The average citizen either doesn't know about the problem or doesn't care.
- —Fish are dying—people can't swim in the water.
- -Professor Snodgrass says "We're doomed unless \* \* \* ."
- —No one at the Federal level is clearly responsible for action—other priorities exist, etc.

Conclusion: Water pollution is a national problem and somebody at the Federal level had better do something fast!

The logical step-by-step unraveling of evidence will give your reader the basis he needs for going along with your message.

#### Step 3

Get your story straight-separate the big issues from other bits of information needed to support, complement, or fairly deal with the message.

Reports can easily get mired down with too much detail words, sentences, paragraphs, even globs of pages that aren't



working. This distracts from the report and may even conceal or confuse the message. Remember: the only valid reason for writing the report is to deliver an important message. Everything else merely tags along to complement it.

Every word, sentence, paragraph, section, and chapter should readily justify its presence in a report by the contribution it makes—the tie-in it has—to the message. (This obviously would include any information necessary to add balance or present the "other side of the story.")

- —Introductory or backgroundtype information provides scene-setting, offers perspective, and appropriately leads up to the message. How much and what it is depends on the message which follows. But, if it's too long, rambles, or is couched in technical or legalistic jargon, the reader may never make it there.
- —The raw message can usually be summed up in a statement or two, but it takes demonstration to make it convincing. An example or two will convey impact in earthy terms. Also, some related issues are usually needed to tell the full story. These should be brought

together logically in summary form to alert the reader to what is to follow. Details can be laid out later. The point is to give "reader direction" quickly—an overview—letting the reader know where we're heading. Lay it out for him . . . 1-2-3. A listing of the major points-which tells the story—forms the nucleus of our report. It's our "skeletal structure" dictating what's to follow. What follows, therefore, should be consistent with it and also easily tied back.

- —Is there another side to the story? The parties affected—what do they say? Our message is not complete and we aren't fair unless we squarely deal with the reactions of those who are the targets of any criticism or who may have to take action based on our suggestions. Their views, therefore, must be given prominent place.
- —What specifically can and should be done about the conditions we found? Some reports may be simply informational, but usually we'll want to offer suggestions or recommendations. Recommendations must be addressed to the underlying causes—a clear tie-in should be evident.
- —Our readers are also entitled to know the scope of our work—what we did and where we did it. A brief discussion of our approach and coverage lends credence to our conclusions.

### Step 4

Adopt and consciously follow a "strategy" for communicating your thoughts to the reader.



Someone has defined "communicating" as the process of guiding important ideas through mental roadblocks. Certainly we all know from experience that uninitiated readers need to be led by the hand.

Theories on communication touch on many complicated concepts—about human nature, perception, thought processes, and uncertainties. One thing comes through loud and clear: people get the message only if it's laid out in an easy flow of logical thoughts. And for the casual reader it must be especially simple and down-to-earth. Remember: "the easiest thing for anyone to do is to stop reading."

How do you lay out the thoughts you believe are essential to communicate your message? Is there a logical flow? Can your presentation of thoughts be easily picked out—point by point? Do your physical structure and arrangement (i.e., overview, chapters, captions, sections, paragraphs, sentences, words) facilitate this blow-by-blow account?

In writing the report, you should be consciously thinking of how your writing fits into the plan for logically communicating your message. You should have a "strategy." To illustrate:

—After satisfying yourself on the basic message and listing the pertinent issues or related bits of information you believe are needed to tell your story, devise an overall framework

for presenting it.

-Begin with the digest. This is where you should form your "skeletal structure"-an organizational trail which should be readily observable throughout the report. For example, the major points supporting your message should stand out to the reader. A good technique is to list them in parallel fashionperhaps indenting them and setting them out separately for quick identification. These major points become logical choices for breaking down the body of the report into appropriate chapters or sections.

—Now consider one of those major sections—the detail behind your first issue highlighted in the overview. A meaningful caption will get you started. But what about the basic content of the section? Can you divide your material into three or four categories or segments? O.K., tentatively devote a paragraph to each segment.

—Next, check each paragraph. Do you have one prominent sentence—one overriding thought-either leading off or finishing up the paragraph? Do all the subthoughts complement or tie-in to that basic thought? Check each sentence. What do they really say? Can you combine? Should you break them up? Check each word! Are they all working? Does each paragraph, sentence, and word convey the precise meaning? Does it all add up to something important in relation to your message?

These principles have application to every part of any report. A "skeletal structure" should be the concern. The physical arrangement as well as the subject matter of each chapter, section, caption, paragraph, sentence, and word should be considered from the standpoint of its logical connection to the whole.

Remember: the reader needs constant direction. Summary statements—overviews—can offer this direction, but good side captions and organization can too. Transition words, lead-in phrases, etc., also are important. An easily identifiable flow of logic should be evident from one chapter to the next, from one section to another, from one paragraph to the next, and so on. This will lead the reader through the mire and help

him understand the logic you have (or should have) in mind in making your point.

#### Step 5

Test the logic of your writing to satisfy yourself.



A message clearly conveyed is open to scrutiny-flaws in logic can be detected, disagreements in philosophy can be flagged, etc. It's when the message is concealed behind high-sounding verbiage that you may have serious problemsgetting back to such basics as support, objectivity, and significance. This may also delay processing or even kill a message that should be told. How do you really know you have it until the message and all its supporting parts are first clear to you? How can others evaluate it unless it communicates to them? Clarity is the *first* test. Then other tests can be applied.

You can test your products to satisfy yourself that your message is clear. A logical presentation of your message can be readily subdivided and outlined. A clear trail should be apparent throughout the report. To illustrate:

- -First, subdivide the report into its major segments. Let Roman numeral I represent the introductory comments, II the message, III the agency comments, IV the conclusions, V the recommendations, etc. (You could follow the same approach with the digest structure on a smaller scale.) These major segments may fall differently depending on the report. But regardless of the report, you should be able to easily identify the major breakouts. Are you satisfied with this overall framework? Is it complete?
- Now begin with I and break it down further . . . points A-B-C ... the basic skeletal structure of section I. For example, in an introductory section. point A may simply introduce the subject and give rationale for our concern in the area. B may provide appropriate background data for the reader. C may deal with the law, departmental regulations, and other criteria. D may deal with agency responsibilities, and so on. Are all these important and necessary? If so, is your paragraph structure consistent with your mental image of a logical breakout? Is the arrangement proper? Are transitions apparent?
- —Perhaps I.A. has three subpoints ... 1-2-3 ... the logical thought structure leading to point A. Do you lead the reader by helping him visualize this three-fold relation-

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ship? Do you need to summarize them first and then devote a separate paragraph to each? Do the thoughts justify the detail?

—What about the sentences? Do they enhance the central point in the paragraph to which they relate? The thought is most important! Is it there? After satisfying yourself on the thought, check the language—choice of words. Is every word working? You'll probably be able to refine the thought and surely you'll be able to cut out a few unnecessary words.

This same type of step-by-step examination of each part of your report is necessary before you can expect a product that communicates. When you're through, you can take another look at the outline. Maybe by that time, you've had some major alterations. Remember the outline should be visible as you read through the report. (You might even want to jot

down the numerals, letters, and numbers in the margins of your draft as a test.) By translating it to an outline you can better examine the real logic of your presentation. It may be shocking when you realize that you have a difficult time devising the outline. You can be sure in such a case that the reader will have a doubly difficult time understanding your point. So try it one more time!

# Final Thought

A clearly written, wellorganized report is, of course, not a substitute for an important message. But, assuming you have something important to say, a commonsense approach may help you say it and your audience see it—sooner!

EDITOR'S NOTE: Drawings by Norman Rockwell. Reprinted with permission from *The Saturday Evening Post* © 1954, the Curtis Publishing Company.

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# Building a Dynamic and Comprehensive EEO Program

This article was written while the author served on an interagency task force charged with recommending improvements to the EEO program of a medium-size agency. Much of the article later became the introduction to the task force's final report.

Employers who seek to build a dynamic and comprehensive equal opportunity program in their workplace must avoid a common blindspot. It's a failure to recognize that to be successful and permanent equal opportunity must be part and parcel of a systematic planned program for institutional change. As one experienced observer stated:

Much of the change required will be systemic and will ultimately affect the way all individuals are selected and developed in the workforce. Effectively managing the process of change as it impacts on the experiences of minorities, women, and other interest groups should positively impact on the entire human resources system within

the organization. It should free the company of policies and practices which are no longer beneficial to either employees or management, and should result in the introduction of new and improved management practices that will enhance the work environment and result in increased employee development and productivity.<sup>1</sup>

One reason why many managers don't approach EEO from this perspective is that as social beings they are conditioned to react to controversial and emotional social issues. Because EEO is a controversial and sometimes

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<sup>&</sup>lt;sup>1</sup> "Equal Opportunity—Planning and Managing the Process of Change," Gloria J. Gerry, *Personnel Journal*, April 1977.

emotional issue, managers frequently don't act on it as a difficult, stubborn personnel problem to be solved in a rational and sophisticated fashion just as other problems they often encounter. Civil rights activists, lawsuits, court decisions unfavorable to employers, and the media have all contributed to the issue-react syndrome.

It's not surprising that managerial reaction to EEO-related public controversy sometimes results in grudging acceptance of antidiscrimination programs in the workplace. These programs are often perceived as an annoying legal requirement designed to benefit "those people" to the detriment of an organization's economy, efficiency and productivity. Consequently, persons responsible for administering EEO programs are frequently viewed as being apart from the mainstream, a prickly presence to be tolerated and, if possible, isolated.

# The Primary Mission Is To Effect Change

It's logical for EEO personnel to resent this unflattering perception. They see themselves as administrators cut from the same cloth as their colleagues and entitled to the same recognition and dignity as officials who carry out other facets of the organization's daily business and overall mission. If they don't understand why they

are not comfortably fitting into the scheme of things in an important and influential way, EEO personnel can easily lose sight of their primary mission in organization—to effect positive, permanent change in basic policies, procedures, practices, values and climate in a systematic, planned way. When EEO personnel forget their reason for being, one or more results may occur, any of which can hamper the primary objective of institutionalizing equal opportunity in the organization.

Take one extreme. Because "turf" (staff size, budget, office location and floor space, furnishings, and other trappings) is important in the bureaucratic value system, EEO personnel can be co-opted into developing a separate personnel function to deal with equal opportunity. This might include, depending on the organization's size, creating a special recruitment section for minorities and women, developing and presenting EEO training courses, operating an upward mobility program for the "disadvantaged," providing special career counseling services, having a staff of management analysts to conduct EEO audits, perform labor market and workforce analyses, calculate statistical goals and timetables, etc. Not only is this a costly and inefficient way to proceed—especially if other units of the organization are already equipped to carry out the recruitment, training and other functions—but more importantly it neatly insulates mainstream personnel operations from having to effect permanent change while making it appear that the organization is making a substantial investment toward equal opportunity.

At the other end of the spectrum, EEO personnel can find themselves so understaffed and so unable to tap into the organization's diverse human and technical resources that they become frustrated enough to engage in unwarranted actions against other elements of the organizationparticularly those responsible for the basic personnel policies and practices toward which EEO should be effecting permanent change. When this occurs there is a counterreaction by the organization. Left unchecked, the confrontation saps the ability of all managers to effectively perform their legitimate roles and the overall personnel function falls into disarray.

Steering a safe and proper course between these extremes can be accomplished with minimal discomfort or upheaval in the organization if the head executive has a firm and total commitment to permanent change, and the level of commitment is clearly and frequently expressed to managers and employees alike. The staff assembled to initiate change must also fully understand and accept its primary role as change agent-committed catalysts who must interact determinedly, yet fairly and cooperatively, with all elements of the organization, aware that integrating EEO principles and practices into all facets of the personnel system will become a desirable objective only if there is demonstrable proof that equal opportunity can benefit everyone, individually and collectively.

# A Need for Negotiation

Under this approach EEO officials and their staffs must be tactful and effective negotiators who influence the policies, procedures and practices which govern the actions of personnelists and managers—while at the same time engendering their confidence—rather than attempting to initiate dual and competitive programs or command change through legal authority and sanctions.

This, of course, is no small task, nor should it be if permanent change is the ultimate objective. For one thing, EEO will become the visible lightning rod for all change which occurs in the organization—whether for good or ill—and EEO must be able to take the heat, deservedly or undeservedly.

For example, if employee appraisal forms and procedures are revised so as to include only measurable, observable, jobrelated criteria (a valid EEO objective) the impact throughout the organization can be powerful. Many white males, some of whom will have chafed under the old appraisal system, may perceive the change as an effort to handicap their promotion opportunities by giving an advantage to minorities and women may share this perception

and their expectations for easier promotion progress will soar.

If the new appraisal process has been developed carefully and expertly—not by EEO staff but by other highly trained professionals whose reputations ride on the successful outcome of the new system—the irritated white men as well as the overly optimistic minorities and women will find that their perceptions were wrong. The new system, after supervisors have been counseled and trained in its use, should bring much greater equity into the promotion possibilities of all employees.

If the old system did in fact give white men an advantage they will, of course, no longer have it. But they will also see, perhaps with some blurring at first, that they are being appraised honestly and fairly, and that women and minorities aren't receiving a disproportionate share of promotions. And if over the short term EEO takes much of the "blame" for the new system, it should also be given much of the credit when the system proves to be more jobrelated-and therefore more fair—than its predecessor.

The organization quite likely will learn an important lesson from this kind of experience: EEO should not be resented as a program which takes away from some and arbitrarily bestows to others; rather it brings benefits to all. Personnelists, who are usually (and often unfairly) criticized for all of the flaws and inequities in an appraisal system, will particularly find that they have good reason to make common cause with

EEO staff since both have equity as a common objective, in fact as well as in principle.

# **Discrimination Complaints**

While practically all actions undertaken by an EEO staff should be designed to facilitate permanent change through intraorganizational cooperation, one area of decisionmaking activity should remain solely within the formal equal opportunity bailiwick. Discrimination complaint processing, by its very nature, should be "off limits" to any and all influences which have, or even appear to have, a vested interest in the outcome of a complaint. Having this critically important decisionmaking authority unto itself, EEO must exercise its judgment power judiciously.

When a decision favors a complainant, either in whole or in part, the improper treatment or inequities which injured the person must, of course, be corrected. Whatever the cost, the complainant must be made whole as far as law permits. Using the same high level of tact and diplomacy needed to foster permanent change throughout the personnel management system, redress in discrimination complaints can be accomplished with little acrimony on the part of managers and supervisors who, in the final analysis, must implement and "live with" the corrective action decreed.

From the complainant's viewpoint alone, it makes sense to have the issues resolved in a fashion which will sharply reduce the level of tension in the work unit where he or she works. Rarely can tension be completely eliminated in the short run, but important ground can be tilled for harvesting productive interpersonal relationships over a reasonably brief period.

The deeper one moves into the complaint process the more difficult it becomes to resolve the problems without engendering deep and lasting hostility on both sides. For this reason it's of utmost importance that diligent efforts be made to resolve complaints in the counseling stage, or at least in the informal adjustment phase following a comprehensive investigation.

When the issues in a complaint with merit are presented and the facts in the matter are carefully and logically developed for the managers and supervisors involved, the wisdom and propriety of the corrective action called for will usually become apparent to them if they first have a basic trust in the integrity and fairness of the system. A system used primarily to punish will not cannot-provide an atmosphere of understanding and trust. If for no other reason, alleged discriminatory officials must believe that the

system operates in a way to teach them egalitarian behavior, rather than to take retribution because they acted improperly in a particular set of circumstances.

Keeping managers and supervisors "out of trouble" should become an organizational watchword for EEO. Ultimately, a point can be reached where managers and supervisors will seek advice from EEO before making a personnel decision which an employee might perceive as being discriminatory. When this occurs everyone benefits

The approach recommended here for building equal opportunity into all facets of an organization's daily life requires considerable patience and perseverance. particularly by the EEO staff. The tendency to be co-opted by other management officials, or to strike at them out of sheer frustration, or to blindly assume the role of advocate for minorities and women, must always be resisted. Succumbing to these personal and organizational pressures will no doubt secure a place for EEO in the scheme of things. But securing a place is a far cry from "changing the place"—which is the business that EEO should be about.

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# A Nickel Here, A Nickel There– Returnables Are Worth the Price!

On December 7, 1977, GAO released a report entitled "Potential Effects of a National Mandatory Deposit on Beverage Containers" (PAD-78-19), which discussed one way to help overcome our mounting solid waste problems. The GAO analysis of this proposal concluded that a mandatory deposit would increase some costs and decrease others, but the net change would probably be a product which costs less to deliver to the consumer. This article goes beyond the detailed cost analysis of the report and discusses the who-should-pay-for-waste issue.

Since Earth Day in 1970, many attempts have been made to legislate a refundable deposit on each beer and soft drink container. Proponents have succeeded in six States and in several localities, but they believe only national legislation will allow a mandatory deposit system to have maximum benefits.

#### **Emergence of One-Ways**

The first no-deposit, no-return beverage container was introduced in 1935 by a small brewery in New Jersey. By 1941, 10 percent of all packaged beer sold was in cans. After World War II, several forces were at work which would affect the beer container market.

- First, steel and can companies saw the expansion possible in the beer container market. About 30 cans are needed to replace one new refillable bottle.
- Second, changing consumer habits, which included increased mobility, more inhome consumption of beer, and more income for leisure activities, led people to look for ways to make their life easier. One form of convenience was a one-way beer container.

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- Third, some beer companies were beginning to compete outside their small local markets, so their transportation costs assumed more importance. They preferred lightweight, one-way containers over the heavier refillable bottles.
- Fourth, small owner-operated food stores were being replaced by multistore, self-service supermarket chains designed to reduce employee handling of products. One-way containers suited such a design very well.

As these forces built in the 1950s, the deposit bottle's share of the packaged-beer market fell from 86 percent in 1947 to 53 percent in 1959.

The soft drink industry lagged behind the beer industry in changing to one-way containers; deposit soft drink containers still had 98 percent of the market in 1959. Two major reasons were:

- Early metal cans were not technically suitable because soft drinks are acidic and are filled under higher pressure than beer.
- Franchised soft drink bottlers have traditionally had relatively small service areas, so the transportation advantage

of the lighter one-way container—whether bottle or can—did not offset its higher cost.

One-way usage grew rapidly in the 1960s, however, because food store chains began to market "house brand" soft drinks in cans. National brands reacted by offering their soft drinks in cans and one-way bottles.

# **Empties Pile Up**

In 1977, 85 percent of the beer sold and 62 percent of the soft drinks sold came in one-way containers. Even though one-ways helped to satisfy the American consumer's leisure and convenience needs, they suffered the fate of being discarded after use—regardless of location. Each American threw away an average of 370 beverage containers in 1977.

In 1960, 2.3 billion soft drink containers were discarded as litter or in the garbage can. This number includes 1.2 billion oneway cans and bottles and 1.1 billion deposit containers not returned. Similar calculations (see table) show the increase in soft drink "candidates" for litter or solid waste from 1960 to 1985.

### Soft Drink Containers Sold

Year	Packaged fillings	Percent one-way	Solid waste or litter
	(billions)		(billions)
1960	21.5	5.4	2.3
1965	29.3	18.0	7.0
1970	40.5	59.7	25.6
1975	49.6	62.1	32.6
1985 (est.)	74.3	63.5	48.7

These numbers demonstrate the mandatory deposit law proponents' concern about one-way containers. The 14-fold increase in unreturned soft drink containers between 1960 and 1975 is astounding. Even if the return rates and the one-way container's share of the market had been the same in 1975 as they were in 1960, discarded containers would have only numbered 5.4 billion-one-sixth of the actual 1975 amount. Discarded beer containers increased from 11.8 billion in 1960 to 36.9 billion in 1975 and are expected to reach 58.6 billion in 1985.

As the beverage industries converted to the one-way container. the litter and solid waste costs associated with beverage containers grew. These costs were not, and are not, borne by the beverage firms, but by the general public. As long as the firms were concerned about recovering the containers for reuse, they were substituting their expenditures for potential public solid waste cleanup and disposal costs. As firms gradually stopped spending money and time to recover the empty deposit containers, the costs became an obligation of the taxpaying public. Individual pieces of litter cost between 2 and 11 cents to pick up, and a ton of post-consumer garbage costs about \$28 to transport and dispose of.

Beverage container litter not only requires equipment, labor, and time to pick up, but litter left lying also has an aesthetic cost. More litter is considered uglier than less litter (except to Oscar the Grouch), but no one has yet found a reliable way to measure the value of avoiding ugliness.

The publicly borne costs of one-way beverage containers have little direct relationship to a person's rate of beverage consumption or neatness. A person who does not drink beer or soda still sees the container litter along the roadside; waste disposal and litter pickup costs are not usually related to the volume or weight of garbage or litter generated; pollution from a landfill or incinerator affects those nearby without regard to the source of the solid waste. Citizens bear these costs, not the beverage firms

#### The Search for Solutions

The beverage and container firms recognized the potential for increased litter from their easyto-identify and durable containers. Their initial reaction was a campaign exhorting consumers to hit the garbage can when throwing away their one-way containers. The litter continued, however, and other approaches were aired. One is a "clean communities plan," using antilittering laws and neater storage and transport of solid waste to control litter. Another was a litter tax, and several States now require "litterable" products to carry a small ad valorem tax, earmarked for litter cleanup and advertising campaigns.

These approaches will not, however, reduce the number of beverage containers which would be discarded as litter or solid waste. The mandatory deposit approach would reduce the amount of litter and solid waste from beverage containers, but, because it is a direct measure and would require beverage firms (and consumers) to alter their way of doing business, it is resisted.

Industry sees a direct action, such as a mandatory deposit, as unwarranted intervention in a market-determined beverage delivery system. Proponents advocate deposits because they would cause the consumer (and the firms) to consider the costs of discarding containers.

The GAO study mentioned in the introduction to this article presented the effects of a national mandatory deposit on such things as capital equipment, employment, and container costs. It concluded that market costs would be lower, and that publicly borne costs would also be reduced.

Manufacturers claim that a deposit system would ignore consumers' demands for the convenience of one-way containers. Government, they add, should not dictate a means of litter control at the expense of consumer freedom. Proponents of the mandatory deposit reply that industry went to the one-way container for its own convenience and profit.

If the Congress imposes a deposit on one-way containers, the consumer will be faced with the choice of either discarding them as before, thus retaining the throwaway convenience but losing the deposit, or returning them for the refund. In effect, the deposit will require the consumer to help keep America clean or to forfeit a minimum of 5 cents per container.

I believe that the deposit would be effective in causing consumers to return most of the containers. This would convert many of the litter/solid waste public costs caused by beverage containers to direct, private costs. In addition, the person who decided to continue to dispose of deposit containers as though they were one-way containers would be paying a cost directly attributable to the act of discarding rather than reusing materials.

This approach is new to the Congress and can be seen as indirect regulation of commercial actions through price adjustments for the greater public good. The firms which would be affected by a mandatory deposit recognize this and are defending their cost-minimizing solutions against attempts to add public costs to their product. Proponents also recognize the new approach and characterize it as but a first step in an effort to include public costs in private costs, without the heavy hand of administrative, restrictive regulation.

EDITOR'S NOTE: This report brought about an interesting exchange of letters between Congressman Les AuCoin of Oregon and the Comptroller General. Parts are quoted below.

Congressman AuCoin's letter of December 13, 1977:

In Appendix V, Page 90, you say, "For us, the value of the Oregon result is in the

reaction of human beings to an economic stimulus, namely a deposit on beverage containers. This reaction is neither dependent on the environmental awareness of Oregonians nor on the semirural character of the state. The people may wear plaid jackets and drive pickups, but they are still consumers buying, or not buying, beverages..."

It's good to know we're more or less normal, except for our plaid jackets and pickup trucks. However, I might suggest that you make your point in less colorful—and stereotyped—terms. Your three-piece suit is showing.

With warm regards and mild irritation, \* \* \*

### Comptroller General Staats' letter of January 6, 1978:

With respect to our 'left-handed praise' of Oregonians, there was most assuredly no slight intended. \* \* \*

Incidentally, it is indeed gratifying to have evidence that someone actually reads our reports in enough detail to note the choice of words in the fifth Appendix, on the next to the last page of the report. I only wish more people read our reports that attentively.

### **Grant Auditing**

Public auditors must not assume that standard financial statements [of grantee's operations] will meet Government needs. Too often their reports do not comment on compliance requirements unless there is a deficiency which affects the grantee's financial position. Government officials generally want a specific statement as to whether or not the grantee administered the grant in compliance with the major grant requirement.

Elmer B. Staats
Comptroller General
of the United States
November 8, 1977

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# The Team Approach: Stirring the Pot

The Task Force on GAO Effectiveness, appointed by the Comptroller General, has suggested the "team approach" as one way to expedite our work. How to implement the new method? How to pick people for teams? There is much debate. This article offers some ideas.

The team concept envisages ad hoc groups, perhaps three to six people, detached from usual organizational constraints to conduct particular audits, program evaluations, and reviews. The idea is that a small, semiautonomous group, given sufficient management backing, can cut through "red tape" and get quality results in much less time.

The small-group theory, supported by experience elsewhere with teams, is attractive: given "meaty" assignments (tasks perceived to be challenging and rewarding), conspicuous management backing, and exemption from most standard operating procedures, small groups are enthusiastic, imaginative, and very result conscious.

# The Spreading "Ad Hocracy"

Alvin Toffler, author of Future Shock, says that ad hoc groups are proliferating throughout industry and government as a way of responding to real-time demands and unprecedented challenges. Formal cellular organizations may be too "ritualistic," too deliberative, to respond appropriately to these exigencies. In the traditional hierarchy the decision route is up and down the constituent pyramids. The team idea is to cut across laterally. Teams can key up

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<sup>&</sup>lt;sup>1</sup>Toffler, "Organizations: The Coming Ad-Hocracy," in *Organizational Design*, *Development and Behaviour*, Karl O. Magnusen, ed. (Glenview, Ill.: Scott Foresman & Co., 1977), p. 119.

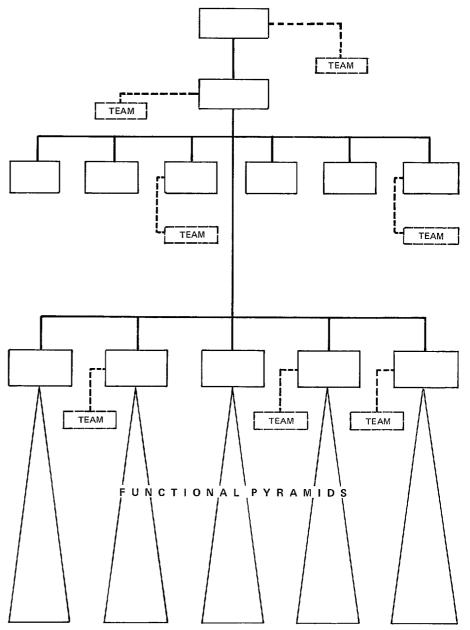


FIG 1. TEAMS AND THE FORMAL ORGANIZATION

a traditional organization, even though they are not apparent on the organization chart. (See fig. 1.)

Semiautonomous groups have been found quite effective in private industry for such critical tasks as determining the location of a new plant, implementing crash cost-reduction programs, making feasibility studies of new products, and planning market strategy. The Task Force on GAO Effectiveness, in fact, was engaged in market strategy and corporate planning of this kind.

Growth companies use teams extensively, some with quite remarkable success. (But they have learned that the organization cadre—personnel, accounting, top management, etc.—must be retained as a stable base.)<sup>2</sup> The military has its task forces for particular missions and its project teams to expedite major weapon developments.

Public accounting and management consulting are probably closer analogs to GAO's work. Small teams and flexible staffscheduling are the way of life in these businesses. Products are seldom reviewed beyond the second layer of supervision, if indeed there is a third one. Central office staffing is austere. Their teams are pretty much on their own to solve client problems. Deadlines are harsh-indeed, overruns have to be absorbed by the consultants. Solving client problems often requires an amalgam of skills.

### The Need for Teams in GAO

Reviewing of draft reports and other assignment documents, for one thing, has become ponderous and time-consuming in GAO. There are multitudinous transactions and many reiterative inspections involved in getting our product out. Classically, formal "cellular" organizations with their elaborate clearance-approval mechanisms are not strict about time schedules and deadlines.

The Task Force on Improving GAO Effectiveness, appointed by the Comptroller General, has concluded that "multiple and repetitive reviews of GAO work [are] a major barrier to timely reporting." <sup>3</sup> (See fig. 2.) The Task Force recommended more reliance on the team approach to assignments as a way of expediting our output.

The present organizational structure does not have to be dismantled with the advent of teams. In the first place, the formal organization, through its standard operating procedures, is an efficient coordinator of many kinds of work. Secondly, it has continuity and institutional memory that the team approach usually lacks.

The extent to which the teaming concept can be used in GAO has to be measured and evaluated. There is no unified theory of organization; <sup>4</sup> therefore, each institution must experiment periodically to finds its own particular style for

<sup>&</sup>lt;sup>2</sup> William W. George, "Task Teams for Rapid Growth," *Harvard Business Re*view, March-April 1977, pp. 71-88.

<sup>&</sup>lt;sup>3</sup> GAO Management News, Sept. 6, 1977, p. 4.

<sup>&</sup>lt;sup>4</sup> Organizational Design, Development, and Organization, op. cit., p. 2.

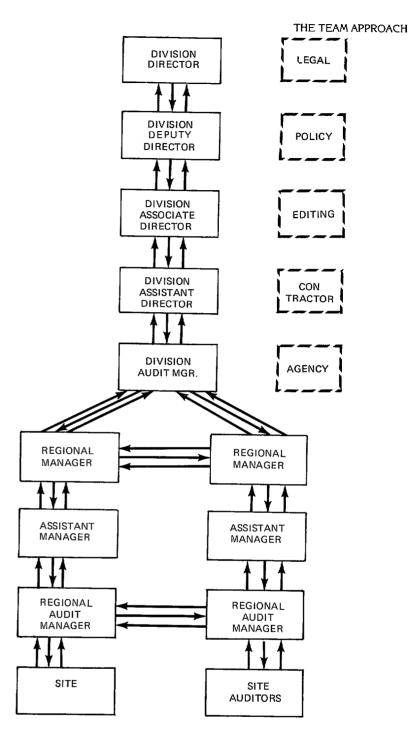


FIG. 2 MULTIPLE REVIEWING IN OPERATIONS

the times: "flat," pyramidal, or some hybrid type. No one organization type is best for every kind of objective. For all we know, the team experiment in GAO may be transitional to a new form of organization not yet discernable.

The important thing to measure over the next year or two is whether the team approach can really turn out quality products with more dispatch, i.e., with less documentation and review than at present.

- —To what extent can teams be "given their head"?
- —Will there be a loss of precision or consistency of policy if supervisory layers are thinned out?
- —How much job-management documentation is really essential for highly motivated groups?
- —Are there new ways to shortcut other internal procedures?

It is anticipated that these small groups will innovate money savings that the whole organization can witness and learn from.

# Staffing the Teams

A team may be intradivisional or drawn from several offices according to assignment needs. Some teams would be crews of auditors; others, a fusion of disciplines, in which the required specialists are in the thick of things rather than far off in the chain of command.

Not all teams would be composed of technicians, of course; there will be need for seasoned generalists. There are those "who know where the bodies are buried" in particular agencies and can save considerable time in zeroing in on core information and "the right people to see."

Team members would return to their regular duties when the job is completed. One could be a leader at one time and a team member at another, depending on the nature of the assignment and the knowhow required.

The team philosophy is not touchy about grades or pecking order. Generally, any GS-13 or higher from a regional office or headquarters division, depending on the locale of the work or the main field of interest, could be the team leader. Some high-level assignments, of course, will need supergrade leaders. In any event, the "point man," whatever his status, should be directly and manifestly accountable for results. Each team member, too, has to stand or fall on the results.

# Administering Team Assignments

Organizational oversight of teams will have to be worked out, but generally the executive in charge (to whom team leaders report) would act more as a coach than as a hierarchal supervisor. The main thing is that the executive in charge must be able to cut through barriers and protocol that would otherwise hinder team performance. The executive is the one to resist encroachment on team freedoms. The higher he is in the

organization, of course, the more powerful will be his teams and the farther they can range unhindered.

Clearly, if organization formalities such as layered reviewing cannot be bypassed, the team approach loses its raison d'etre. Teams have to be exempted from these traditional constraints if the approach is to work at all well.

Little administrative control should be lost because of teaming. One distinguished observer asserts that subordinates in semiautonomous roles do not attempt to usurp executive prerogative or make any important moves without consulting the boss. In fact, the reporting may be more meaningful than before.<sup>5</sup>

The present thinking is that the team leader, as the "first among equals," will be in charge but he or she will want to negotiate with the crew about assignment methodology, study directions, and division of work. There should be an easy "give and take" among team members to arrive at a consensus about these matters.

Getting the team leader involved in selecting the crew reinforces his or her accountability for results. The team leader will be in charge of the performance ratings for the course of the assignment.

# Do We Have Team Talent on Board?

This writer, speaking from experience in more than a few organizations, is sure of it; it's just that our staff has not really been tested. Consider how much bottomline responsibility private industry, including public accounting and management consulting firms, give routinely to their GS-13 to GS-15 counterparts!

Professor Miles, who believes that most enterprises are much more affluent in talent than they realize, says:

\*\*\* managers at all levels tend to view their own resources as largely untapped, and their creativity and concern constrained by their own superiors. \*\*\*In their own minds at least they are bosslike people in subordinate-like jobs.6

This self-confidence and ambition is characteristic of many of GAO professionals, and the team approach will gradually bring these traits to the surface. To stir them up sooner, a new method of selecting teams might be tried.

#### Finding the "Right" People

Some individuals who are successful in a highly structured environment, with established guidelines and methodology, may not not do so well in the free-wheeling, eclectic environment of small groups. Nor do all employees want great challenge or extra stress in their jobs.

<sup>&</sup>lt;sup>5</sup> Raymond E. Miles, "The Affluent Organization," Organizational and Development Series, Part II (Harvard Business Review), 1977, p. 67.

<sup>6</sup>Ibid., p. 62.

The more promising leaders for small, give-and-take groups—as opposed to formal ones—may be those pragmatic in outlook, impatient with routine, receptive to new ideas and people, and eager for unusual and challenging opportunities to show their mettle. Formal pyramidal organizations do not ordinarily place a premium on such attributes.

The obvious way to staff a team would be to pick the most promising people and then direct or persuade them to join the team. This is not unlike our present method of assigning staff, but it has not been entirely satisfactory, as the Task Force has pointed out.<sup>7</sup> Are there better ways, or at least some worth trying with the new team approach? This may be the most opportune time to experiment with new recruiting methods.

#### **How About Competitive Selection?**

Now to stir the pot: One strategy worth testing would be to open up a select few assignments to "free competition." In other words, advertise some select reviews, much like promotion and transfer opportunities are offered today: list the review's general scope, objectives, and skills required and call for responses, divisionwide or GAO-wide, from prospective team leaders and crews.

After an initial screening, team leader candidates could be invited to submit their plans of work, "bids and proposals" as it were, telling how they understand the assignment, the staffing required, and the expected cost of staff and travel. Once selected, a team leader could pick his crew from among the volunteers or elsewhere. Selection of the "winner" would be up to the executive in charge. Those who generate assignments of particular note should be put in charge of them.

#### Advantages of Volunteerism

If this approach is found to work, it could have a number of initial benefits to both management and staff:

First, only those who favor the team approach need come forward. No one has to be "drafted," as it were. Those who are not sold on the idea—and there may be more than a few—can "wait and see." Enthusiasts make the best missionaries anyway.

Second, the most enterprising individuals need not be searched for: self-starters will emerge on their own. The ambitious will pursue opportunity by volunteering for advertised assignments or originating their own assignment "packages."

Third, self-starters need little monitoring to keep them "on the stick." Job management documentation can therefore be quite limited for team assignments, and executives in charge would be saved close supervision.

Fourth, teams that come together on their own are most likely to be compatible and better motivated; administrators, too, could be saved the time

<sup>&</sup>lt;sup>7</sup> Task Force on GAO Effectiveness, Report of Findings, Conclusions and Recommendations, Memorandum to the Comptroller General, Nov. 9, 1977, p. 3.

and difficulty of "horse-trading" personnel.

Fifth, there will be a natural convergence of personal goals with organizational goals when assignments anywhere in a division or in GAO are open to competition. People would gravitate towards work in their own area of competence, field of interest, or perceived career ladder.

Sixth, performance ratings can be based directly on results and thus be more material and satisfying to those who volunteer. Some people may see team assignments as a way of making a new mark.

Seventh, our people undoubtedly have experience or background skills, not revealed by current job titles, that may emerge in the voluntary setting.<sup>8</sup>

Eighth, the free competition will signal to all that GAO is indeed a flexible organization, confident about its people resources, and willing to experiment and innovate.

The immediate problem may be competition among team leaders

for the "best" team members and staffs vying to join the "best" leaders and teams. Executives may find this approach awkward and troublesome at first (e.g., taking on people they don't really "know") and personnel administrators may find it untidy, but letting the people sort themselves out on a few selected assignments would be one way to get the team approach launched.

\* \* :

The introduction of the team approach, this writer believes, will prove that our middle management is altogether worthy of considerable responsibility and is in little need of the elaborate backstopping imposed by the present system.

Whatever the recruitment method, the team approach should be most interesting. Perhaps the downstream problem—or blessing—will be an embarassment of riches: How will we use an abundance of new leadership capabilities if they indeed prove to be well in excess of the usual job demands?

<sup>&</sup>lt;sup>8</sup> For example, this writer knows of a supervisory auditor, an electronics engineer with, improbably, a master's degree in public health. Such "hidden" skills may be volunteered when the right assignment is advertised.

# The Critical Path Method Applied to GAO Reviews

The Critical Path Method can reduce the time it takes to complete GAO assignments.

#### Introduction

GAO can use the critical path method (CPM), a project management technique long employed in the construction, aerospace, and weapons development industries, to reduce the cost of our reviews and shorten review time. Such savings can be achieved because CPM enables us to (1) focus on time-critical tasks throughout the assignment, (2) identify tasks that can be performed concurrently, (3) quickly assess the impact of tasks added to the assignment, and (4) establish more realistic incremental time goals and completion dates. CPM has already proven itself in the San Francisco region

and we think that such success can be repeated throughout GAO.

#### What is CPM?

CPM is a technique for project planning, analysis, coordination, and control. Simply stated, CPM is a flow chart showing an entire project in terms of a network of "events" connected by "activities."

An event represents an instant of time and is usually described as the start or completion of an activity, such as the start of fieldwork, the completion of a product outline, or the completion of an audit. (On a CPM diagram, events appear as geometrical shapes or nodes.) An activity is the amount

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Mr. Monahan, a supervisory auditor, joined the San Francisco regional office after spending 2 years with the International Division's Far East Branch. He has a B.S. degree in accounting from California State University at Hayward and attended the Wharton Information Systems Program in May 1974. He is a member of the World Affairs Council of Northern California and the Commonwealth Club of California.

of work in calendar days occurring between two events. (On a CPM diagram, activities are arrows or lines.) Figure 1 is a model CPM diagram.

Constructing a CPM diagram, usually an audit team effort in San Francisco, centers around the events and activities of the planned review. The first step is to determine the events and activities required to meet assignment objectives and estimate the time needed to complete each activity. Then the team decides on a sequence—that is, on which activities must be completed before others can begin. Activities that can be performed concurrently are also identified at this time. Figures 2 and 3 illustrate a CPM diagram for a hypothetical GAO review.

#### How CPM Differs

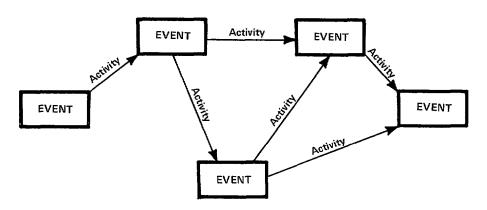
Although similar to GAO's traditional management of assignments, CPM emphasizes the relationships between activities and how these relationships affect the completion of the audit. GAO assignment supervisors not using CPM are aware of these relationships, but supervisors using CPM manage by them, thereby seeing better how the commitment of valuable resources to one activity affects other activities. This increased visibility gives the supervisor greater control over the assign-

#### Focusing on the Critical Path

CPM diagrams quickly focus management attention on the crit-

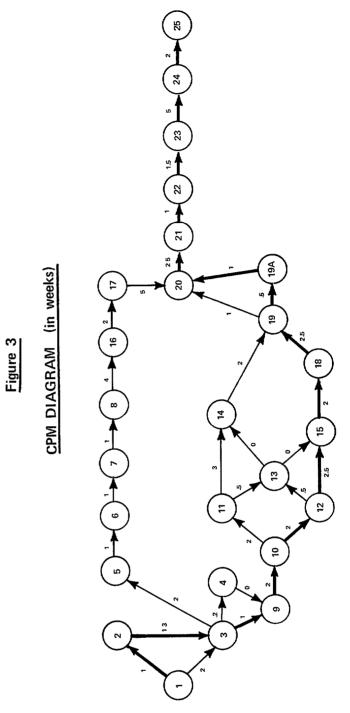
Figure 1

A CPM NETWORK



Figu	re 2
Final	<b>CPM</b>

Final CPM					
	Event	Activity	Duration in weeks		
1.	Assignment started,	•			
	leader assigned				
2.	Staff assigned	1–2	1		
3.	Research, initial	1–3	2		
	contacts completed				
	-	2–3	1.3		
4.	Job conferences	3–4	.2		
	planned				
<b>5</b> .	Questionnaires	3–5	2		
_	designed				
6.	Questionnaires	5–6	1		
_	tested	0.5			
7.	Questionnaires	6–7	1		
	printed	<b>5</b> 0	_		
8.	Questionnaires	7–8	1		
0	distributed Audit visits	2.0	•		
9.	scheduled	3–9	1		
	scheduled	4-9	0		
10.	Site A completed	9–10	$\overset{\circ}{2}$		
11.	Site B completed	10-11	$\frac{2}{2}$		
12.	Site C completed	10–12	$\frac{2}{2}$		
13.	Initial outline	11–13	.5		
	prepared		,,,		
		12–13	.5		
<b>14</b> .	Site D completed	11–14	3		
		13–14	0		
<b>15</b> .	Site E completed	12–15	2.5		
		13–15	0		
16.	Questionnaires	8–16	4		
17.	returned Questionnaires coded,	16–17	2		
17.	analyzed	10-17	2		
18.	Site F completed	16-18	2		
19.	Site summaries	14-19	$\frac{2}{2}$		
10.	completed	11 10	<del>-</del>		
	<b>.</b>	18-19	2.5		
19a.	Training for two	19-19a	.5		
	team members				
20.	Product outline	19–20	1		
	prepared				
		19a-20	1		
	70 1 1 0 1	17–20	.5		
21.	Product drafted	20-21	2.5		
22.	Product reviewed	21–22 22–23	1 1.5		
23. 24.	Product referenced Product final typed	22-23 23-24	1.5 .5		
24. 25.	Product final typed Product forwarded,	23-24 24-25	.5 .2		
40.	completed	± <del>1</del> 40	.2		
	compicion				



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ical path. The critical path is the longest route through the CPM network in terms of calendar time and is the minimum time for completing the assignment. All other activities are concurrent to critical path activities and take less time to complete. (The critical path is shown as the dark line in fig. 3.)

Focusing on the critical path is an important advantage of CPM because it gives information needed for good assignment management. The supervisor knows he must closely watch progress on the critical path, since each day's delay there causes a corresponding delay in overall assignment completion. This knowledge enables the supervisor to identify possible slippage early and correct problems before they get out of hand, either by requesting additional staff or by dropping lower priority activities. With traditional management, slippage may not be recognized until the 80- or 90-percent completion mark, when the supervisor can do little but accept a delay in assignment completion.

But what if the assignment deadline is earlier than the completion date determined by CPM? Assuming the team has identified all possible opportunities for concurrent performance of activities, either the completion date must be pushed back or some critical path activities must be dropped or modified. The advantage of using CPM here is that the supervisor knows where he stands and can make an informed decision as to what must give.

#### Concurrent Performance of Activities

The time-saving potential of performing activities concurrently must not be overlooked. A team can save time by identifying and taking advantage of concurrent performance opportunities. For example, during a recent San Francisco regional office review, the team needed to visit 25 sites in 9 geographic clusters throughout the western States. If done sequentially, site work would have consumed 17 weeks-well beyond the assignment's deadline. Therefore, the team visited three site clusters concurrently, reducing site work time to 6 calendar weeks. Because of learning curve and coordination limitations, three concurrent visits was the team's practical upper limit in this case. Obviously, realistic upper limits for concurrent performance will vary, depending on the assignment and the staff available.

In contrast to critical path activities, concurrent activities can be delayed without delaying final product completion, as long as they are not delayed beyond the critical path activities they are concurrent with. Otherwise, they become the critical path and dictate the assignment completion date.

For example, figure 3 shows that the time required to reach event 20, "product outline prepared," via the questionnaire route (events 3-5-6-7-8-16-17-20) is only 11.5 weeks, compared to the critical path route (events 3-9-10-12-15-18-19-19a-20) of 13.5 weeks. The questionnaire portion of the re-

view can be delayed, therefore, up to 2 weeks without delaying overall assignment completion. However, questionnaire delays beyond 2 weeks will push back the completion date by the amount of delay in excess of the 2-week "slack."

The bottom line is this: A team can use CPM to save by (1) identifying all possibilities of concurrent performance, (2) "staffing up" to take advantage of such opportunities, and (3) spotlighting delays either along the critical path or in concurrent activities that would lengthen the critical path.

But what if adequate staff are not available to take full advantage of concurrent performance? CPM has advantages here, too, as the diagram is an easily understood document useful for staffing purposes, as well as for tactical assignment planning and control. The supervisor can use the diagram to vividly demonstrate the impact on the completion date if more personnel are not committed.

#### Assessing the Impact of New Tasks

Few GAO audits ever go exactly as originally planned. Analysis and information needs not foreseen at the start of the assignment often become apparent. With CPM the supervisor can determine if the new activities can be done concurrently, thus minimizing the need for additional time. However, even if concurrent processing is not possible, CPM allows the supervisor to determine when the new activities should be done so as to minimize the delay.

#### Setting Realistic Time Goals and Completion Dates

Setting realistic time goals for completing a job is difficult. However, when CPM is used, time frames become more clearly defined because they are related to specific activities. This in turn forces the supervisor and the team to plan better. Also, CPM breaks assignment time into visible, manageable segments, allowing a team to concentrate on meeting successive, incremental target dates, as opposed to one final, make-it-or-break-it completion date.

As the assignment progresses, the supervisor will be able to compare the team's original estimate with the actual time it takes to perform each activity. This evaluation allows the team to continuously update and redefine its goals so they remain realistic. It will also help team members estimate time more accurately for future assignments.

#### Conclusions

Completing assignments faster, a major GAO goal, requires effective and continuous assignment planning and control at the audit team level. CPM gives a team an edge in planning, coordinating, and controlling an assignment in an uncertain and complex environment.

CPM supplies a much needed methodology to reduce the time it takes to complete an assignment. CPM enables a team to focus on critical activities, take advantage of concurrent performance opportunities within staffing limitations, assess quickly the impact of new tasks, and set more realistic incremental time goals and completion dates. Consequently, we think CPM can be a valuable management technique for GAO assignment supervisors and audit teams.

### Hand Signals for Meetings

In a football game you play by the rules. The same rules can apply to your meetings. In Dick Dunsing's new book, You and I Have Simply Got to Stop Meeting This Way, is a set of hand signals that can be used during the meeting to signal a violation.

The Call	The Referee's Signal	The Meeting Violation
Too much time; delay of game	Folding arms across the chest.	Rambling, motormouthing, evading the issue.
Personal foul	Extending left arm; making a hacking motion with the right hand, held like an axe blade.	Negative strokes, discounting, open insults or attacks.
Off-sides	Placing both hands on hips.	Getting into someone else's turf; taking responsibility for doing something another person can do best.
Encroachment	Rotating the hands around each other.	Baiting someone to jump off-sides—and into hot water.
Illegal procedure or motion	Rotating the hands around around each other.	Too many people on the field—participating all at once.
Holding	Clasping right hand over the extended left wrist.	Intentional blocking of another player's idea—which may help the play to go.
Illegal receiver down field	Patting the top of your head.	Reacting to or receiving a message clearly aimed at another.
Interference	Making a pushing motion forward with both hands, arms extended.	Interrupting another player, tailgating (putting in on or finishing sentences for others), slipping in irrelevant comments.

# The Inefficiency of Waste

This century has made itself known for its prodigality. We tolerate and endure waste. Our spendthrift habits extend all the way from governments which could cut their administration costs by applying strict account-keeping and managerial discipline, to individuals who waste even their leisure time. We spend foolishly, money, goods, energy, resources, time and brains.

Elimination of waste is not something that may or may not be done. It is an economic necessity, a matter of survival. It contributes to success just as surely as does profit itself. The essence of waste consists not in using materials, but in using them in ways which produce less than the maximum potential profitable amount of goods or services.

Even spare time is wasted. To be able to fill leisure intelligently is the last product of civilization, and at present few people have reached this level. Those who are devoted to the pleasure principle believe that in their hard-won leisure they should make as little effort as possible, mental or physical. They are wasting their most precious possession. To get the most out of spare hours, they should indulge in thinking and learning, reading or writing, conversation or correspondence, community, domestic, artistic and aesthetic activities. and creative travel. To pass the time wastefully is to shorten the period of living.

#### National Resources

On a national scale, we waste the bounty and lay waste the beauty of our country. Waste of land, forest and minerals could be tolerated as long as successive increments of new land, forests and minerals were available for exploitation, but the destruction of natural resources has been going on jauntily in the face of inevitable scarcity. People who participate in the popular indifference to this squandering of resources would be surprised if someone said: "You countenance it because you think what has the future got to do with me? I'm living now."

Waste is different from using up. Many things are of no value unless they are used. It is all a question of how efficiently they are used. Every sound measure directed against waste of our resources should be welcomed and supported.

EDITOR'S NOTE: Even though this article was written some years ago, its message is very appropriate for our environments today. (Reprinted with permission of the Royal Bank of Canada from its September 1967 Monthly Letter.)

#### Waste in Business

There is no more interesting game for men and women than to apply their minds to thinking of ways to perform work efficiently with a saving of time and effort. They have to consider it or face extinction. They cannot leave it to mechanical forces. A computer is for getting to-day's answers. Managers are for thinking about to-morrow's problems and taking steps to solve them.

It is possible to have waste in the top ranks of administration as well as on the floor of the factory, the desk in the office. The man in charge must learn where waste may occur, sense when it is occurring and move diligently to stop it. The ideal that inspires the formulation of the principles of efficient management at every level is elimination of waste. This is a vital function, not something tacked on to a job to be thought about now and then.

### **Uncovering Waste**

To eliminate waste we need to concentrate attention on finding it. This is an occasion for calculating thought. Learn where the leaks are. Find out the facts about where waste exists and the cause of its existence. Start with the assumption that no department of business, no office is so perfectly managed that a serious search cannot find a leak to stop.

The efficiency with which equipment is used is a vital point to check. Good production control always means more output. If there is not proper control then the purchase of new equipment will be nothing but a waste of capital.

Machines and tools must be kept in such condition as to perform without fail the amount of work reasonably expected of them. Laxity in maintenance causes gross waste through shut-downs. The features to seek are: increased productivity, uniform quality, better control, and reduced costs. There is nothing excellent, brilliant or economic in employing higher levels of mechanization than are needed. A yearning for the prestige of owning a computer may prod a department into getting one when an abacus could handle all its needed calculations.

There is waste in the form of added cost when schedules are not followed to bring work to the right section of a department at the right time. Men who would not think of wasting a dollar in money may be careless in handling material, and throw away or waste many dollars worth of materials without a thought. Material should be looked upon as if it were cash and treated accordingly.

Careless work, whatever the grade of worker, should not be tolerated. Slovenliness wastes not only the sloven's time but the time of those who have to go around fixing up things he spoiled or doing things he neglected to do.

Purchasing is another area to be watched. It is not a service function but a profit-making activity. The changes made in recent years in purchasing concepts, organiza-

tion, personnel and practice are producing substantial savings.

The difference between good purchasing and poor purchasing can be the difference between profit and loss. Wise spending, careful ordering and thrift in use are just as vital to a good showing in the financial statement as is competent manufacturing.

Intelligent handling of scrap can also influence operations. Turning waste products into by-products renders primary resources more valuable. Science functions through synthetic chemistry, by-product utilization and the recovery of secondary materials so that junk piles rival fields, forests and mines as sources of raw materials.

Time with a capital "T" is infinitely long; time with a small "t" is unfortunately short. It is an element in efficiency; it has value to which may be attributed a money equivalent; it plays a big part in success or failure.

High on the list of causes of wasted time is poor planning. The cure is to list the jobs to be done in order of their importance. Put everything possible on a time-table. Define goals, work out a program, set up time-tables, and concentrate on essentials.

### Planning Action

There are two functions involved in eliminating waste: find the facts and introduce the improvements. Too often management loses much time in studying possible improvement without asking why the operation is performed at all. If the operation cannot be eliminated, study possible improvements. List the various courses of action: combination, standardization, improved sequence, and simplification.

Much waste of time, space, material and energy is due to thoughtlessness. Things are allowed to accumulate so that they take much searching for to find what is wanted.

### Budgeting

One of the most severe indictments against management is its failure to institute an adequate system of budget control. The result is grievous waste. We cannot plan accurately without knowledge of what is a reasonable expectation for every phase of the operation.

It may be said that budgetary control simply means the systematizing of foresight and the comparing of what is with what ought to be. The budget will guide toward using facilities and assets to the maximum of their potentiality; it provides a method of coordinating all buying and spending so as to obtain the maximum value; it acts as a safety signal, since it indicates the variance between what is wished for and what is being attained; it prevents waste. It is a test of managerial ability to make things happen in accordance with a plan.

#### Waste Is Inefficiency

Before a blue print can be laid

any operation we must reject completely and finally the idea of tolerating waste. The ideal is to

out for the successful conduct of reach the point where we do not have to reflect whether we will be wasteful or not; we will be careful by habit and as a matter of course.

### Words of One Syllable

When you come right down to it, there is no law that says you have to use big words when you write or talk.

There are lots of small words, and good ones, that can be made to say all the things you want to say, quite as well as the big ones. It may take a bit more time to find them at first. But it can be well worth it, for all of us know what they mean. Some small words, more than you might think, are rich with just the right feel, the right taste, as if made to help you say a thing the way it should be said.

Small words can be crisp, brief, terse—go to the point, like a knife. They have a charm all their own. They dance, twist, turn, sing. Like sparks in the night they light the way for the eyes of those who read. They are the grace notes of prose. You know what they say the way you know a day is bright and fair—at first sight. And you find, as you read, that you like the way they say it. Small words are gay. And they can catch large thoughts and hold them up for all to see. Like rare stones in rings of gold, or joy in the eyes of a child. Some make you feel, as well as see: the cold deep dark of night, the hot salt sting of tears.

Small words move with ease where big words stand still-or, worse, bog down and get in the way of what you want to say. There is not much, in all truth, that small words will not say-and say quite well.

Anonymous



# Foreign Bribes Are Now Illegal

The recently enacted Foreign Corrupt Practices Act of 1977 prohibits publicly and privately held domestic concerns, their officers, directors, employees, and shareholders from bribing foreign politicians and political parties. Foreign bribery is defined as a direct or indirect (e.g., through a foreign subsidiary) payment or offer intended to promote business interests. The law does not, however, cover "grease" or "facilitating" payments to relatively low-level foreign government employees. Companies making bribes can be fined up to \$1 million; individuals face a maximum \$10,000 fine, imprisonment of up to 5 years, or both.

The bill also requires publicly held companies to maintain a system of internal controls designed to assure proper authorization and recording of transactions. They must also keep records which "accurately and fairly" reflect financial activities.

The legislation is a reaction to disclosures of questionable foreign payments made by over 350 U.S. companies. As originally proposed,

the bill would have made it illegal to falsify accounting records or to lie to independent auditors. These provisions were dropped, but a pending Securities and Exchange Commission proposal contains the same proscriptions.

# Civilian Personnel Law Manual

So, you think the rules on taking leave are simple? The Office of the General Counsel issued a 71-page booklet in December 1977 entitled Civilian Personnel Law Manual—Title 1: Leave. Wow! Got a question on leave? Surely you'll find the answer here.

### The Two Faces of GAO

We sometimes get criticized for not presenting balanced reports; it's said that GAO is always "one way." Not so!

The following is from a report to the House Committee on Government Operations entitled "Cooperative Actions Result in More Economical Computer Acquisition and Improved Security at the New Orleans Computer Center" (LCD-77-118, Dec. 23, 1977).

The Department of Agriculture was remiss in not adequately following prescribed computer system acquisition procedures. However, its cooperation during our review has enabled its proposed acquisition to proceed with incorporated modifications. This joint effort will result in substantial savings to the Government and in strengthening security for New Orleans Computer Center and National Finance Center operations. (Emphasis added.)

At the same time, GAO is not afraid to tell it like it is when the occasion demands it. For example, in another report to the Congress entitled "The Military Services Are Constructing Unneeded Family Housing" (CED-78-8, Dec. 29, 1977) we state, in dealing with agency comments:

The Department agreed with the recommendations in principle and with most of the conclusions \* \* \* but disagreed with the report's primary conclusion that unneeded housing had been built at the locations identified in the report. A close reading of the Department's explanatory and qualifying comments reveals, however, that the Department's "agreement in principle" seeks merely to rationalize and minimize the deficiencies discussed in the report and promises little substantive action to resolve the deficiencies. (Emphasis added.)

So, you see, GAO does give credit where credit is due and at the same time calls them as it sees them.

# Federal Contracts To Be Tracked

The Procurement and Systems Acquisition Division has been working closely with an interagency task group considering Commission on Government Procurement recommendation D-1, to "improve the system for collection and dissemination of statistics on procurement by commodity and agency to meet congressional, executive branch, and industry needs."

Those efforts have been successful. The establishment of a central system to track Federal contracts. which now amount to about \$80 billion a year, was announced last week. Currently there is no agency or person who can identify what the Federal Government is purchasing from whom or how the contracts were awarded. A centralized data system would facilitate monitoring of the contracting process by appropriate agency watchdogs and stimulate competition among contractors by increasing information on what types of contracts are available. The new Federal Procurement Data System and Data Center will be managed by the Department of Defense and is scheduled to begin operation by next October.

# Cost Accounting Standards Board

At September 30, 1977, the Cost Accounting Standards Board had on file 1,488 statements disclosing cost accounting practices submitted by reporting units of 219 contractors with defense contracts or subcontracts of \$10 million or more. This was reported in the *Progress Report to the Congress* 

1977 by the Board, which is chaired by the Comptroller General of the United States.

In the 1977 reporting period the Board promulgated one Cost Accounting Standard, issued one formal interpretation, and made several important changes in its regulations.

The new standard is No. 413, "Adjustment and Allocation of Pension Costs." Published in the Federal Register on July 20, 1977, it became effective on March 10, 1978. It is the second standard on the subject of pensions. Its anticipated benefits are (1) increased consistency and uniformity in measuring actuarial gains or losses and assigning them to cost accounting periods and (2) better allocation of pension costs to segments of an organization.

Interpretation No. 1 to Standard No. 401, "Consistency in Estimating, Accumulating, and Reporting Costs," was issued in November 1976 and deals with accounting for direct materials not incorporated into end items.

During the year, the Board also issued a booklet entitled "Restatement of Objectives, Policies and Concepts," designed to help interested persons understand the Board's views, work procedures, and policies.

#### **CASB Highlights**

The Cost Accounting Standards Board has recently begun publishing a new newsletter entitled *CASB Highlights*. It will be issued quarterly and will focus on the previous quarter's major events.

#### **New OTA Director**

On January 23, Russell W. Peterson was sworn in as Director of the Office of Technology Assessment (OTA).

Peterson has had a distinguished career since receiving his Ph.D. in chemistry from the University of Wisconsin in 1942. During his 26 years in industry, he rose to direct the DuPont Corporation's research and development division.

From 1969 to 1973, Peterson served as Governor of the State of Delaware. While Governor, Peterson also served as Chairman of the National Education Commission of the States and of the National Advisory Commission on Criminal Justice Standards and Goals.

For most of 1973, Peterson served as Chairman of the Executive Committee of Nelson Rockefeller's National Commission on Critical Choices for Americans. From late 1973 to 1976, he served as Chairman of the White House Council on Environmental Quality.

During 1977, Peterson served as President of New Directions, a nonprofit, international organization aimed at mobilizing efforts to solve worldwide problems.

At the swearing-in ceremony, Peterson said he would lead OTA so as to help Congress "bring a more comprehensive and longrange view to bear on the decisionmaking process and thereby contribute to a more promising future for people everywhere."

#### The OGC Adviser

The OGC Adviser is a journal published quarterly by the Office of the General Counsel for the professional staff of the United States General Accounting Office. Each edition contains articles on topics covering recent or important developments in the law that bear upon the performance of GAO work. Topics have included how to comply with the Freedom of Information or Privacy Acts, what to do to avoid violating the Fly America Act, and how to contract for supplies or services. Articles short generally and straightforward in style. Authors are generally attorneys, but the Adviser's editors encourage other GAO professionals to contribute articles on legal issues that might affect the performance of GAO work. To submit articles for publication or to contact the editors, call 275-5212 or write to room 7026, 441 G Street, NW., Washington, DC 20548.

#### From Australia

A report dated October 1977 from Australia's House of Representatives Standing Committee on Expenditures to its Parliament expressed the Committee's appreciation for the valuable advice that *Elmer B. Staats* gave them when he was in Australia in February 1977. Mr. Staats was there to participate in a series of seminars on efficiency audits which was sponsored by the Australian

Society of Accountants. In a private meeting with the Committee, he suggested various criteria for assessing efficiency and effectiveness in government programs.

## Paperwork Commission

Four more in the series of interim reports by the Federal Paperwork Commission have been published. The first is "The Federal Information Locator System.' which deals with the lack of an overall tracking system that would identify what information the Government is collecting, from whom the information is sought, where it is located, and how new reporting requirements relate to information that is already available. The Commission has recommended the development of an inventory of public reporting requirements imposed on the public. The second report is entitled "Information Value/Burden Assessment." This pamphlet focuses on the balance to be achieved between the value of information collected by Government agencies and the burden imposed on its suppliers. "Consumer Credit Protection" is the third report. This is a study of the paperwork implications of consumer protection requirements imposed by the Government. The last report, "Administrative Reform in Welfare," is concerned with the complexity and number of forms related to receiving public assistance and the problems this paperwork creates.

## AAA Sets Up International Section

The American Accounting Association has established a special interest section for international accounting. The section was formed in recognition of the need to improve communications among professional accountants and to establish international standards. It will serve as a clearinghouse to collect and disseminate information about current international accounting efforts and events.

Membership is open to GAO staff who belong to the Association.

# New Publication on Auditing and Accounting for Grants-in-Aid

"Federal Grants-in-Aid: Accounting and Auditing Practices" is the title of a new American Institute of Certified Public Accountants publication designed to aid practitioners engaged in Federal grant programs. The book, written by Cornelius E. Tierney, CPA, and Robert D. Hoffman, CPA, explains in detail how the Government budgets, plans, accounts for, and audits Federal funds. It outlines the techniques and procedures followed in Federal financial management and auditing and describes how agency financial functions are organized. It also discusses the subject of accounting and auditing of Govern-

ment contracts and grants. Copies may be purchased through:

Order Department American Institute of Certified Public Accountants New York, NY 10036

# Guide to Accounting Periodicals Revised

A new 1978 Author's Guide to Accounting & Financial Reporting Publications has been published by the University of Texas at Arlington. The guide informs persons wishing to submit articles for publication on readership, desired length, form of manuscript, criteria of selection, and approximate leadtime for acceptance or rejection.

It includes details on more than 100 accounting and financial publications issued in the United States, Canada, Australia, Europe, India, Pakistan and South Africa. The guide lists the International Journal of Government Auditing, whose editor is John D. Heller, Assistant to the Comptroller General.

A copy of the guide is available in the technical library at GAO Headquarters. Copies may be obtained from:

Accounting Department University of Texas Arlington, TX 76019

#### Dan Borth

The GAO Review records with regret the death on February 19,

1978, in Phoenix, Arizona, of *Daniel J. Borth*, former deputy director of the Financial and General Management Studies Division. Mr. Borth retired in 1971, having been associated with GAO for 5 years.

Before joining GAO, Mr. Borth was with Louisiana State University, where he served in various capacities, including Dean of Administration and Executive Vice President. During his career, he also held appointments at the University of Illinois, Washington State University, Lehigh University, West Virginia University, and the University of Chicago.

Mr. Borth also served the Federal Government in the War Assets Administration, the Bureau of the Budget, and the Department of Defense. From July 1, 1962, to June 30, 1964, he served as Deputy Assistant Secretary of Defense (Accounting and Audit Policy). During World War II, Mr. Borth served in the Office of the Quartermaster General with the rank of colonel. He was a holder of the Legion of Merit.

Mr. Borth attended the University of Kansas and the University of Illinois. He held B.S. and M.S. degrees in accounting and a Ph.D. in economics.

Mr. Borth belonged to the American Institute of CPAs, the American Economic Association, the Society for Public Administration, the National Accounting Association, the Louisiana Society of CPAs, the American Society of Military Comptrollers, the Southwestern Social Science Association, and the former Federal Gov-

ernment Accountants Association. He was also a member of the Beta Gamma Sigma, Beta Alpha Psi, Phi Kappa Phi, and Omicron Delta Kappa honorary fraternities.

#### Richard J. Madison

Richard James Madison, Atlanta's first regional manager, passed away on January 30, 1978, following a short illness. He was 64. In June 1972 he had retired after 38 years of Federal service.

Dick Madison entered Government service in 1934 as a clerk in the General Accounting Office. During World War II he served in the Army and landed in France on D-day with the Allied invasion forces. After returning home, he rejoined GAO and remained in Washington, D.C., until 1950 when he was selected by John Thornton to set up a field office—called a "zone office" at the time—in Atlanta, Georgia.

By today's standards, it was a modest operation, consisting of about 50 auditors. They performed site audits in an area stretching from Ohio to the Gulf of Mexico and from the Mississippi River to the Atlantic Ocean. The Atlanta office was later redesignated a regional office and Dick Madison remained its regional manager until his retirement.

Dick Madison was a direct descendant of President James Madison. He graduated from William and Mary College. He is survived by three sons and four grandchildren. While in Wash-

ington, D.C., he was an ardent ham radio operator.

During most of his years in Atlanta he was an active golfer, winning many trophies and spending much of his leisure time participating in the game. He was also an avid reader, having a large library of his own, and frequently read an entire book before his early morning departure for work.

#### **Who Counts**

It is not the critic who counts, nor the one who points out how the strong man stumbled or how the doer of deeds might have done them better.

The credit belongs to the man who is actually in the arena, whose face is marred with sweat and dust and blood; who strives valiantly; who errs and comes short again and again; who knows the great enthusiasms, the great devotions, and spends himself in a worthy cause; who, if he wins, knows the triumph of high achievement; and who, if he fails, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who know neither victory nor defeat.

Teddy Roosevelt



BY JUDITH HATTER Chief, Legislative Digest Section

# Federal Grant and Cooperative Agreement Act of 1977

The Congress enacted into law the Federal Grant and Cooperative Agreement Act of 1977 (Public Law 95-224, February 3, 1978, 92 Stat. 3) in order to distinguish Federal grant and cooperative agreement relationships from Federal procurement relationships.

The law includes a requirement that the Director of the Office of Management and Budget 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 the course of his study, the Director is to consult with, and to the extent practicable, involve representatives of the executive agencies, the Congress, the General Accounting Office, State and local governments, other recipients, and other interested members of the public.

No later than 2 years after enactment of the law, the results of the study are to be reported to the House Committee on Government Operations and the Senate Governmental Affairs Committee.

The report on the study is to include (1) detailed descriptions of the alternative means of implementing Federal assistance programs and the circumstances in which the use of each appears to be most desirable, (2) detailed descriptions of the basic characteristics and an outline of such a comprehensive system of guidance for Federal assistance programs, the development of which may be determined feasible, and (3) recommendations concerning arrangements to proceed with full development of a comprehensive system of guidance and for administrative or statutory changes deemed appropriate.

# Apportionment Requirement for Federal Employment

The statutory requirement that appointments to competitive service positions in executive branch agencies in the Washington, D.C., area be apportioned among residents of all the States on the basis of population was repealed by enactment of Public Law 95–228, February 10, 1978, 92 Stat. 25.

The repeal was recommended by the General Accounting Office in 1973 and reaffirmed in its report on "Conflicting Congressional Policies: Veterans' Preference and Apportionment Versus Equal Employment Opportunity" (FPCD-77-61, Sept. 29, 1977).

In summarizing the GAO position, the Senate Governmental Affairs Committee, in its report on the legislation, states:

\* \* \* According to GAO, the effect of apportionment, in terms of encouraging applicants from all over the country, has been minimal, largely because applicants are reluctant to move to the Washington area. On the other hand, GAO pointed out, nationwide competitive examinations and rotating agency personnel and decisionmaking authority insures that the different geographical areas of the Nation are represented in Government Affairs at the national level.1

# Cosmetic and Hair Dye Regulation

The regulation of coal-tar-based hair dyes under the Federal Food, Drug, and Cosmetic Act was proposed in two separate pieces of legislation introduced in January by Congressmen James J. Delanev of New York and Andrew Maguire of New Jersey (H.R. 10512 and H.R. 10561, respectively). Both members referred to findings and conclusions in the GAO report entitled "Coal Tar Hair Dyes, An Unregulated Hazard to Consumers" (HRD-78-22) while explaining their proposals on the House floor.

Similarly, Senator Thomas F. Eagleton of Missouri, in urging enactment of the Cosmetic Safety Amendments of 1977, S. 2365, which he had introduced in December, referred to the findings of a GAO study "that about 100 ingredients listed as suspected carcinogens by NIOSH's Registry of Toxic Effects of Chemical Substances are found in cosmetics."<sup>2</sup>

Gregory J. Ahart, director, Human Resources Division, discussed Food and Drug Administration regulation of both cosmetics and hair dye on February 3, in an appearance before the Subcommittee on Oversight and Investigations of the House Committee on Interstate and Foreign Commerce.

### Welfare Abuses by Aliens

On February 22, Senator Charles H. Percy of Illinois, for

<sup>&</sup>lt;sup>1</sup>S. Rept. No. 95-614, December 15, 1977.

<sup>&</sup>lt;sup>2</sup> Congressional Record, Vol. 124 (Feb. 7, 1978), p. S1370.

himself and 12 others, submitted amendment No. 1702 to the House-passed version of H.R. 7200, Public Assistance Amendments of 1977, for the purpose of correcting welfare abuse by aliens.

Senator Percy pointed to the GAO report "Number of Newly Arrived Aliens Who Receive Supplemental Security Income Needs to Be Reduced" (HRD-78-50, Feb. 22, 1978) which discloses that in five States—California, Florida, Illinois, New Jersey, and New York—newly arrived aliens annually receive over \$72 million under the supplemental security income (SSI) program.

# Legislative Oversight Act of 1978

Congressman Butler Derrick of South Carolina introduced legislation to improve congressional oversight of Federal programs and activities by requiring (1) greater specificity in setting program objectives, (2) continuing information on the extent to which programs are achieving their stated objectives, and (3) periodic review of new authorizations of budget authority and tax expenditures.

Section 202 of H.R. 10421 requires the Comptroller General to publish a descriptive catalog of interrelated Federal activities, including tax expenditures. The bill

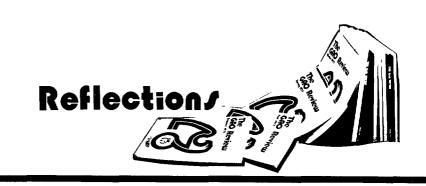
delineates the comparisons and descriptions to be included and requires periodic update of the catalog.

## Federal Banking Agency Audit Act

Legislation that would require Federal audits of the Nation's three bank regulatory agencies for the first time was approved by the Senate Governmental Affairs Committee on March 7, 1978. The bill, H.R. 2176, has already been passed by the House and is expected to go to the Senate floor for consideration within 2 weeks. Essentially, this legislation would authorize GAO to audit the operating expenditures of the Federal Reserve System, the Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation as frequently as practicable.

# Appearances Before Congressional Committees

Between January 19, the beginning of the second session of Congress, and February 28, GAO officials made 34 appearances to offer testimony before the various committees and subcommittees of Congress. This is a recordbreaking pace!



Twenty years ago the Staff Bulletins (predecessor of The GAO Review) reported that:

- Bob Keller (then Assistant to the Comptroller General) testified before the House Appropriations Committee, Subcommittee on Foreign Operations, on the annual report of the mutual security program in Laos.
- Vic Lowe (now director of the General Government Division) and others briefed the House Committee on Government Operations on GAO's report on review of power billings and related activities under Atomic Energy Commission contracts with the Ohio Valley Electric Corporation; Electric-Energy, Inc.; and the Tennessee Valley Authority.
- Greg Ahart, Gene Birkle, Kyle Hamm, Stan Sargol, Paul de-Lassus, Karl Deibel, and Ken Nelson were among those honored at a dinner for new CPAs.
- Frank Conahan (now associate director, International Division) and Al Voss (now re-

- gional manager, Philadelphia) joined GAO.
- Ray Hausler (now in the Seattle regional office) left GAO to enter military service.

And 10 years ago in the spring 1968 edition of *The GAO Review* you'll find that:

- Tony Assia (now in the General Government Division) had joined GAO after graduation from Indiana University.
- Lou Fink (now in the Financial and General Management Studies Division) came to us from the Treasury Department.
- Jan Goldstein (recently moved to headquarters from the Los Angeles regional office) joined our Washington regional office from the New York Institute of Technology.
- Dave Utzinger joined our Chicago office after graduating from Milton College.
- Hugh Wessinger (now with the Community and Economic Development Division) passed the CPA exam in Virginia.

- Walt Henson (then regional manager of New Orleans) addressed Beta Alpha Psi, Mississippi State University, on "Audits of Management Decisions."
- Paul Shnitzer (then attorney, Office of General Counsel) addressed the Defense advanced procurement management course, Fort Lee, Virginia.
- Fred Shafer (now director, Logistics and Communications Division) was named associate director in the old Transportation Division.
- Maurice Sady was designated assistant regional manager in Philadelphia and Ed Kolakowski got a similar appointment in Los Angeles.

#### To Restore Public Confidence

Most civil service employees perform with spirit and integrity. Nevertheless, there is still a widespread criticism of Federal Government performance. The public suspects that there are too many Government workers, that they are underworked, overpaid, and insulated from the consequences of incompetence.

Such sweeping criticisms are unfair to dedicated Federal workers who are conscientiously trying to do their best. But we have to recognize that the only way to restore public confidence in the vast majority who do work well is to deal effectively and firmly with those who do not.

President Jimmy Carter March 2, 1978



Philip A. Bernstein

Philip A. Bernstein was designated deputy director for Operations in the Human Resources Division February 26, 1978.

Mr. Bernstein was formerly deputy director of Management Services from July 6, 1976, during which time he also served as acting director, Office of Personnel Development and Services, from July 1977 to February 1978.

Mr. Bernstein graduated from George Washington University with a bachelor of arts degree in accounting in 1958. He joined GAO in 1960, and until 1972 he had a variety of assignments in the former Civil Division, including that of assistant director with the responsibility for planning and directing audit work at the Atomic Energy Commission during 1970-72.

In July 1972 he was appointed manager of the Seattle regional office where he served until his appointment to the position of deputy director of Management Services. He has received the Distinguished Service Award and the GAO Meritorious Service Award.



Felix R. Brandon II

Felix R. Brandon II was appointed director, Office of Personnel Development and Services, on February 12, 1978.

Mr. Brandon received his B.S. degree from St. Louis University in 1960 and served as an officer in the Air Force until 1966. He began his Federal civilian career with the Chicago region of the U.S. Civil Service Commission serving as an investigator, a personnel management specialist with duties as a personnel management evaluation team member and team leader, and as Assistant Regional Labor Relations Officer. In 1972, he transferred to the National Labor Relations Board as Chief of the Personnel Office's Evaluation and Labor Relations Program, and served in that capacity until his promotion in 1973 to the position of Deputy Director of Personnel. Mr. Brandon was appointed Director of Personnel, NLRB, in April 1974.

Mr. Brandon is a member of the Federal Personnel Administration Career Board. He serves as a member of the International Personnel Management Association's Legislative Liaison Committee and is currently working with the Civil Service Commission Executive Director, under the aegis of the Interagency Advisory Group, to assume implementation of the newly approved Special Emphasis Employment Program.

Mr. Brandon served on a Task Force of the Civil Service Commission and selected agency members to develop concrete proposals for carrying out recommendations of the internal merit staffing review team established to review allegations of violations and abuses of merit principles by CSC employees. On completion of this task force, he was appointed to an Interagency Task Group to review the task force recommendations and develop equivalent actions for agency adoption.



Charles O. Magnetti

Charles O. Magnetti, deputy director, Office of Personnel Development and Services, retired on January 31, 1978, after more than 36 years of Federal service—all in GAO.

Mr. Magnetti joined the General Accounting Office early in 1942 and was assigned to the Audit Division, where he progressed through several intermediate positions to the position of administrative officer. He transferred to the Division of Personnel as Chief, Classification Section, in September 1951. A year later, when the Classification and Standards Sections were combined he was placed in charge. In November 1969, he was designated assistant director, Personnel Operations, and on March 10, 1975, he was designated director, Office of Personnel Management. After a reorganization in 1977, he was made deputy director, Office of Personnel Development and Services.

Mr. Magnetti attended Fordham University and received a J.D. degree from National University (now George Washington University) in 1950, graduating first in his class. He was elected to the National University Honor Society and was awarded the Sigma Delta Kappa Scholastic Key as the graduating member having the highest scholastic standing during 4 years of study.

Mr. Magnetti is a member of the District of Columbia and Maryland bars and in 1967 was admitted to practice before the U.S. Supreme Court.

In 1952 Mr. Magnetti received the GAO Honor Award, a Meritorious Service Award in 1967, and the Distinguished Service Award in 1974.



James D. Martin

James D. Martin was designated director, Office of Program Planning, January 23, 1978.

Mr. Martin has served as deputy director for Operations in the Human Resources Division since December 1974. He received a bachelor of science degree in accounting from Central Missouri State College in 1958 and attended the Program for Management Development at the Harvard Business School in 1967. He is a CPA (Virginia) and a member of the American Institute of CPAs and the Association of Government Accountants.

Since joining GAO in 1958, Mr. Martin has had a wide variety of experience in the former Civil Division, the European Branch of the International Division, and the former Manpower and Welfare Division.

Mr. Martin received the GAO Career Development Award in 1967; headed the task force on health facilities construction costs which received the Comptroller General's Award in 1973; Federal Government Accountants Association's (Washington chapter) Outstanding Achievement award for 1973; and the Federal Government Accountants Association's Achievement of the Year Award for 1973.



## Susumu Uyeda

Susumu Uyeda was designated executive director of the Joint Financial Management Improvement Program March 6, 1978, by the four JFMIP principals—the Comptroller General of the United States, the Chairman of the Civil Service Commission, the Director of the Office of Management and Budget, and the Secretary of the Treasury. He will be responsible for developing and directing multiple interagency programs and projects relating to the improvement of financial management in the Federal Government.

Mr. Uyeda has had a long and distinguished career in the Federal service. He began his career with the Army Audit Agency where he served as assistant district manager of the Pacific District and program director in Headquarters. Between 1963 and 1967, Mr. Uyeda was with the Defense Supply Agency serving as director, Defense Eastern Regional Audit Office. In 1967, he moved to the General Accounting Office where he became assistant director in the former Office of Policy and Special Studies. Since 1969, he has been with the Office of Management and Budget, the most recent position being Assistant for Interagency Accounting Systems.

Mr. Uyeda received his bachelor of science degree in accounting from UCLA and master of public administration from the American University. Among his personal awards are the Army Audit Agency's "Auditor of the Year" Award, the Comptroller General's Literary Award, and GSA's Public Service Award. Mr. Uyeda is also a part-time instructor for the University of Virginia.

# Other Staff Changes

**New Assistant Directors** 

Philadelphia

Anthony N. Pinto

Community and Economic Development Division

Sam A. Madonia

**New Supervisory Operations** 

Research Analyst

General Government Division

Daniel C. Harris Joseph P. Litzelman Financial and General Management Studies Division

Herbert R. Martinson

**Human Resources Division** 

David P. Baine

Logistics and Communications

Division

Paul F. Math

Retirements

Federal Personnel and Compensation Division

John S. Emery

New Deputy Assistant

**General Counsel** 

International Division

Charles W. Keller

Office of the General Counsel

Vincent A. LaBella

**Human Resources Division** 

Joseph A. Vignali

**New Assistant** 

Regional Managers

Logistics and Communications

Division

Merwin F. Almy Allen W. Sumner

Field Operations Division

Chicago

Detroit

Peter A. Larson

Dallas

Randall D. Conley

Deon H. Dekker

Reassignment—Assistant

**Directors** 

International Division (from EMD)

Joseph R. Ferri

General Government Division (from OIR)

Willis L. Elmore

Reassignment—
Assistant Regional Managers

Human Resources Division (from OPDS)

Lawrence J. Horinko

Atlanta (from Philadelphia)

Stanley E. Dyal

Office of Internal Review (from HRD)

Carl R. Fenstermaker

Seattle (from GGD)

Danny L. Statler

### The Key to the Bureaucratic Puzzle

Our ability to create a nonbureaucratic congressional office, the existence and the termination of the Federal Fire Council, the reports of advisory committees and Federal whistle blowers, our inquiry into the Government's use of contractors and consultants and my work with the General Accounting Office all fit together.

The Federal bureaucracy, behind those long titles, endless redtape and frustrating procedures, is, in fact, a large number of people trying to do their jobs efficiently and expeditiously.

I believe the key to unlocking the bureaucracy puzzle is recognition of and increased attention to some basic commonsense ideas.

Senator Patrick J. Leahy of Vermont January 26, 1978



# Office of the Comptroller General

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

Virginia Polytechnic Institute and State University (Distinguished Lecturer in Accounting) on "Role and Responsibility of the General Accounting Office," Blacksburg, Va., Jan. 9.

U.S. Civil Service Commission's orientation seminar, Policy Executives Briefing Program, on "Reflections on Responsibilities of the Political Executive," Washington, D.C., Jan. 27.

The Brookings Institution's Conference for Business Executives on Federal Government Operations on "Role and Functions of the General Accounting Office," Washington, D.C., Jan. 30

Following are recently published articles of the Comptroller General:

"Why 40 Percent of Eligible Government Accounting Systems Have Not Yet Been Approved Under the Budget and Accounting Procedures Act of 1950" (adapted from an address at a meeting of the Washington chapter of the Association of Government Accountants on Nov. 11, 1977), Journal of Accountancy, February 1978.

"Social Indicators and Congressional Needs for Information," The ANNALS of the American Academy of Political and Social Science, vol. 435, January 1978.

John D. Heller, Assistant to the Comptroller General, addressed the Brookings Institution Conference for Business Executives on Federal Government Operations on "Functions of the General Accounting Office" in Washington, D.C., Mar. 13.

#### Office of the General Counsel

Paul G. Dembling, general counsel:

Participated in the midyear meeting of the American Bar Association public contract law council on Feb. 11 in New Orleans. Spoke before the American Bar Association State model procurement code program on "Architect-Engineer Selection Procedures," Feb. 12 in New Orleans.

Addressed a joint program sponsored by the Association of Government Accountants, the Federal Bar Association, and the National Contract Management Association on "GAO in the Eye of the Procurement Storm," Feb. 15 in Los Angeles.

Spoke to Executive Seminar of Brookings Institution on "Role of the GAO," Feb. 27.

Spoke on "Grant Auditing and What Needs To Be Done" before a seminar on grant law sponsored by the Federal Bar Association, Feb. 27.

Paul Shnitzer, associate general counsel, spoke before a Federal Bar Association and National Contract Management Association seminar on "How Protests Are Processed," Dec. 8 in Dayton, Ohio.

Ronald Wartow, senior attorney: Spoke on "Update on Past Year's Protest Decisions Which Might Affect R&D Contracting" before a retreat of the Research Contracts Committee of the National Institutes of Health, Jan.

Spoke before the Defense advanced procurement management course on "Problems in Formal Advertising," Jan. 13, in Sacramento.

# Office of Congressional Relations

T. Vincent Griffith, legislative attorney, spoke on the role of the General Accounting Office, at the Civil Service Commission's congressional briefing conference for EPA on Jan. 27.

M. Thomas Hagenstad, legislative adviser, spoke on the role of the General Accounting Office, at several sessions sponsored by the Civil Service Commission: the congressional briefing conference for HEW on Feb. 2 and two congressional operations seminars held on Feb. 2 and 16.

On Jan. 23 and Feb. 27, Peter J. McGough, legislative adviser, spoke on the role of the General Accounting Office, at two corporate executive development programs held by the U.S. Chamber of Commerce.

### **Energy and Minerals Division**

*Monte Canfield, Jr.*, director, addressed the following groups:

The Conference on Energy for the Georgia General Assembly, at the University of Georgia Center for Continuing Education, on "National Energy Policy: Myth or Reality," Athens, Dec. 8.

The Rocky Mountain Forum on International Issues, at the Center for Public Issues, University of Denver Research Institute, on "New Dimensions in Energy Policy and Organization Regulation of Petroleum Pricing and Allocation," Colorado Springs, Jan. 12.

The mineral economics graduate student association, Pennsylvania State University, on "GAO and Its Role in Energy and Materials Issues," University Park, Feb. 16.

# Federal Personnel and Compensation Division

H. L. Krieger, director, spoke before the National Association of Retired Federal Employees on "The Future of Federal Retirement" in Washington, Jan. 24.

# Financial and General Management Studies Division

Donald L. Scantlebury, director:

Spoke on "Accounting in the Federal Government—Its Development, Its Needs, Its Problems" at a special seminar sponsored by the Washington, D.C., chapter of the Association of Government Accountants (AGA) on Jan. 12.

Was a panelist at a conference on emerging issues in government accounting and auditing, sponsored by AGA and the Municipal Finance Officers Association on Jan. 27 in Atlanta. His topic was "What's Happening in the Audit Standards Area."

Spoke to the Northern Virginia chapter of the Virginia Society of

CPAs on Feb. 14, Falls Church. His subject was "Performing Audits for the Government— Opportunities and Problems."

Walter L. Anderson, associate director:

Spoke on "The Hardest Part of Software" at a conference presented by the American Institute of Industrial Engineers, Dec. 12, Washington, D.C.

Spoke on "Recent GAO Work on Federal ADP Policies" at the fifth annual caucus of the Computer and Communications Industry Association, Feb. 28, Washington, D.C.

Kenneth Pollack, assistant director:

Spoke to the Northern Virginia chapter, National Association of Accountants, on "Computer-Related Crimes," Feb. 9, Tysons Corner.

Spoke to the Montgomery-Prince Georges chapter of AGA on "Prevention and Detection Controls to Deter Computer Crime," Feb. 15, Silver Spring, Md.

Spoke to the Navy Audit Symposium on "Computer Auditing in the Federal Government," Feb. 16, Alexandria, Va.

Spoke to the graduate information systems class at the University of Maryland, College Park, on "Computer Auditing in the Federal Government," Feb. 28.

Joseph L. Boyd, assistant director, presented a seminar on "Computer Auditing" to the North Carolina State auditors in Raleigh

on Dec. 8. He was assisted by *John Lainhart* and *Barry Snyder*.

Ernest H. Davenport, assistant director, was elected to a 3-year term as council member-at-large of the American Institute of Certified Public Accountants at the annual meeting in Cincinnati.

George L. Egan, Jr., assistant director:

Participated in a workshop and was a guest speaker at a joint meeting of the St. Louis, Kansas City, and mid-Missouri AGA chapters on the "Single Audit Approach to Federally Assisted Programs," Dec. 1–2, in Lake Ozark, Mo.

Spoke at the Annual Financial Management Seminar on "The Auditing Process," Feb. 17 in Washington, D.C.

Bob Ryan, assistant director:

Addressed the Dallas chapter of the Texas Society of CPAs on "Audits of Federally Assisted Programs and Intergovernmental Audit Cooperation: Problems and Prospects," on Feb. 14. His presentation was part of a 1-day "Accounting and Auditing Update—Governmental Organizations."

Was general chairman for the joint AGA and Municipal Finance Officers Association conference on "Emerging Issues in Government Accounting and Auditing" held in Atlanta, Jan. 26-27.

W.A. Broadus, Jr., assistant director:

Participated in a workshop on "The Effects of Federally Assisted Programs on State and Local Governments" at the seventh financial management conference sponsored by the Joint Financial Management Improvement Program, Feb. 6 in Washington, D.C.

Spoke on "GAO Audit Standards—How They Interface With Federally Assisted Programs" before the Cincinnati chapter of AGA on Feb. 16.

Bill Hedling, operations research analyst, and Herb Martinson, supervisory operations research analyst, arranged and participated in a program evaluation seminar for the Interagency Audit Training Center in Bethesda, Jan. 25-26.

An article by William P. Johnston, assistant director, called "Computerizing the Pro Forma Workpaper" and originally published in The GAO Review, summer 1976, was republished in the International Journal of Government Auditing, January 1978.

Gordon J. Filler, supervisory systems accountant, was program moderator for the seminar "OMB, GAO, Treasury, CBO, and YOU" conducted at George Washington University by the Washington chapter of AGA on Jan. 12.

John W. Lainhart, supervisory management auditor, and Barry Snyder, management auditor, gave a presentation on "A Simultaneous—Parallel Approach to Testing Computerized Systems" to the Patuxent chapter, Association for

Systems Management, in Philadelphia on Jan. 10. They gave the same presentation to the Philadelphia chapter of the Institute of Internal Auditors on Feb. 13

Ivan Trotsky, systems accountant, joined the newly organized budgeting and financial management section of the American Society for Public Administration.

#### General Government Division

Bill W. Thurman, assistant director, lectured at the annual intergovernmental relations seminar held by the Civil Service Commission's Executive Seminar Center, Berkeley, Calif., Jan. 30.

#### **Human Resources Division**

Ronald F. Lauve, associate director, discussed GAO's role and responsibilities in evaluating Federal programs at program evaluation workshops at the Federal Executive Institute, Charlottesville, Va., on Jan. 17 and Feb. 22, 1978. Mr. Lauve was assisted by Joseph F. Delfico, assistant director, Program Analysis Division, at the February workshop.

# Logistics and Communications Division

Fred J. Shafer, director, addressed the Society of Logistics Engineers in Washington, D.C., Jan. 26, on wartime logistics.

Wilbur W. Bailey, assistant director, addressed the executive committee of the Radio Technical Commission for Aeronautics on Feb. 28. He described a recent GAO review and impending report entitled "Navigation Planning—Need for a New Direction" (LCD-77-109). Robert Carpenter, audit manager, assisted Mr. Bailey in the presentation and the question and answer session which followed.

#### Bob McKenzie, audit manager:

Coedited a National Bureau of Standards special publication, released in October 1977, entitled "Audit and Evaluation of Computer Security" (NBS SP 500-19).

Addressed the New York City seminar on computer security, held for the city's data processing executives on Dec. 2. The subject of the presentation was "Application Programming Security and Auditability."

Addressed the Diebold Research Program's work session on risk management of management information system facilities, held in New York City on Dec. 14. Mr. McKenzie spoke on the "Results of the National Bureau of Standards Invitational Workshop on Audit and Evaluation of Computer Security." He was General Chairman of the National Bureau of Standards workshop.

Addressed the 19th International Operational Data Security Workshop at Orlando, Fla.,

Feb. 22, on the subject of "EDP Auditing and Controls."

# Procurement and Systems Acquisition Division

Richard W. Gutmann, director, spoke on the role and responsibilities of GAO at a luncheon meeting of the management policy group of the Electronic Industries Association in Washington, D.C., on Feb. 7.

Frank P. Chemery, associate director, spoke on the role of GAO in major weapon systems acquisition and OMB Circular A-109 at the Navy Logistics Management School on Jan. 20.

Andrew B. McConnell, associate director:

Spoke on the work of GAO's task force on OMB Circular A-76 (procuring goods and services from the private sector) before the National Association of Service Contractors on Dec. 5, before the National Council of Technical Service Industries on Jan. 26, and before the National Contract Management Association's panel on "Contracting Out" on Feb. 1.

Conducted a seminar entitled "GAO Looks at Government Contractors" at the 40th annual convention of the National Association of Supervisors on Feb. 21.

Donald E. Day and Dr. John G. Barmby, assistant directors, and Joe W. Johnson, supervisory auditor, participated in a seminar on

"Management of Scientific and Engineering Activities" for senior research and development managers at the Civil Service Commission in Washington, D. C., on Dec. 15.

C. William Moore, Jr., assistant director, was elected president of the northern Virginia chapter of the National Association of Accountants, an organization dedicated to accountants' self-development and continuing education.

### Program Analysis Division

Harry S. Havens, director, addressed a jointly sponsored Ph.D. colloquium on behalf of the Faculty of Accounting and the School of Public Administration, at Ohio State University in Columbus, Feb. 24. His subject was "The Evolution and Current Role of GAO."

Dean K. Crowther, deputy director, spoke on "Implications of Zero-Base Budgeting for GAO's Role in Auditing and Program Evaluation" before the American Association for Budget and Program Analysis symposium, in Washington, Jan. 26.

Dennis Dugan, associate director, and Lamar White, supervisory management auditor, testified on the "Potential Effects of a National Mandatory Deposit on Beverage Containers" before the Joint Committee on Energy of the Commonwealth of Massachusetts Legislature in Boston, Feb. 27.

Osmund T. Fundingsland, assistant director, was elected to the conference committee of the National Conference on Advancement of Research, for a term of 4 years.

Joseph Comtois, assistant director, spoke on "Changing Patterns of Federal Aid to State and Local Governments" and the importance of the role of State policy in the distribution of Federal aid at the western conference of the Council of State Governments in San Francisco, Mar. 3.

Marianne Kah, management analyst, participated in a panel discussion on "National Growth and Development Policy and Regionalism" at the national conference of the American Society for Public Administration, Phoenix, Apr. 12.

Elaine O. Walker, management auditor:

Coconvened a panel on "Assessment of Congressional Intergovernmental Operations" at the 1978 American Society for Public Administration conference in Phoenix, Apr. 9-12.

Was appointed to cochair the young professionals forum of the National Capital Area chapter of the American Society for Public Administration. Forum activities are designed for persons who are relatively new to public service.

Steve Bryant, supervisory management analyst, spoke on "An Evaluation of the Effect of Alcohol Programs on Alcohol-Related Crime, 1968-73" before the Ameri-

can Society of Criminology in Atlanta, Nov. 18.

Alan Siegfried, auditor, is presently serving as director of the Patuxent, Maryland, chapter of the Association for Systems Management.

#### Field Operations Division

#### Chicago

Ken Boehne, supervisory auditor, spoke on "GAO's Employment Outlook" to university placement officers at the Government College Relations Council for the Chicago Area, Dec. 15.

Bob Rodriquez, auditor, represented GAO at "Careers in Government Day," Governors State University, Jan. 23.

Mary Quinlan, auditor, represented GAO at "Government Career Day," Mundelein College, Feb. 1.

Velma Butler, auditor, represented GAO at "Governmental Information Career Day," University of Illinois, Circle Campus, Feb. 13.

#### Denver

George D. Doyle, supervisory auditor, conducted a seminar on GAO audit standards for the local government services division, Montana Department of Community Affairs in Helena, Dec. 15.

Eva S. Copland, supervisory auditor, was elected to the position of president-elect of the

Denver chapter of the Association of Government Accountants, Nov. 17. She is currently serving as president for the 1978-79 term

Lowell E. Hegg, supervisory auditor, spoke on "GAO: Its Roles and Career Opportunities" to the Beta Alpha Psi accounting fraternity at the University of Denver, Jan. 30.

Duane A. Duffy, management auditor, discussed career opportunities in GAO with Denver area high school students at the Denver Career Education Center, Oct. 23.

#### Los Angeles

Jan H. Goldstein, supervisory auditor, spoke to the Junior Federal Executive Board on "GAO and the Changing Role of Government," Sept. 9. He spoke to the UCLA Accounting Society on "The Role of GAO in Government," Oct. 18. Mr. Goldstein also addressed a Mission College class on "Supervision in Government."

Frederick Gallegos, management analyst:

Had his article on "Timesharing Administration Within a Government Agency" published in the November-December issue of Timesharing Users magazine, *Interactive Computing*.

Is teaching a COBOL programming class at California State Polytechnic University, Pomona, for the winter quarter.

Conducted a 1-day practical business education seminar on auditing and the computer at California State University, Fullerton, Jan. 28.

Donald H. Freidman, supervisory auditor, spoke on "The Role of GAO in the Federal Government" at California State University, Dominguez Hills, Feb. 10

Victor Ell, audit manager:

Was guest speaker at the Nov. 4 seminar of Beta Alpha Psi, California State University at Los Angeles chapter. Mr. Ell's topic was "The GAO Today."

Was honored with the Los Angeles Federal Executive Board's distinguished public service award, Jan. 25. The award, presented at an awards luncheon by actor Hugh O'Brien, was in recognition of Mr. Ell's many contributions to the community and in review of Federal health programs.

#### San Francisco

Jack Birkholz, audit manager:

Participated in a workshop on "Auditing Federal Grants at the Local Level and GAO Audit Standards" before the National Association of Black Accountants, Inc., Sacramento chapter, Feb. 4.

Participated in the National Contract Management Association Workshop on "The Need for a Professional Administrative Structure to Support Grant and Assistance Programs," in Palo Alto, Jan. 17.

Participated with Charlie Vincent, assistant regional manager, in an operations audit seminar for the Peninsula Palo Alto chapter of AGA, Jan. 18, and the San Francisco chapter, Mar. 2.

#### Seattle

John E. Cass, management auditor, addressed the consumer issues class of the College of Business Administration, University of Oregon, Nov. 21. He spoke on the role and functions of GAO and Federal agency activities in the consumer area.

Stephen J. Jue, management auditor, and Edwin C. Giddings, auditor, participated in a discussion before the graduate class of the School of Public Administration, University of Washington, Nov. 23. Their topics were "Auditing Today" and "Developing Audit Issues."

Marvin F. Case and Donald A. Praast, supervisory management auditors, and Stephen Jue discussed "Auditing, Issue Development, and Agency Relationships" before a class in supervision and management in the public service at South Seattle Community College, Dec. 7.

Charles D. Mosher, audit manager, was the guest speaker in Seattle at a meeting of the executive officers of the URS Company, an international professional services organization comprising engineers and economists who serve as consultants on large engineering and economic development projects. He spoke on the organization and objectives of GAO, with special emphasis on environmental reviews.

Alvin S. Finegold, supervisory GAO auditor, discussed GAO's review of Federal grant assistance for educating handicapped children with:

The board of directors of the National Association of State Directors of Special Education, Feb. 8, in Alexandria, Va.

The Executive Board of the Council of Administrators of Special Education, Feb. 28, in Las Vegas.

David K. Connolly, auditor, was reappointed to a third term on the advisory board of the School of Business, Administration and Economics, Seattle Pacific University, for school year 1977-78. The board furnishes advice to the school on planning, future development, curricula, and other projects.

### New Attorneys Recently Admitted to the Bar

Listed below are staff members who have advised the Office since April 1, 1977, that they have been admitted to the bar in the States shown.

J. Lynn Caylor Edward L. Fitzmaurice Christopher K. Harris Andrea J. Kole Robert W. Parker Doreen S. Stolzenberg Ohio Massachusetts Massachusetts Maryland Maryland New York

### **Government Employees**

I dwell on Vic's [Vic Smiroldo, Chief Counsel and Executive Director of the Post Office and Civil Service Committee of the House of Representatives] death because I seem to have felt it more personally than most that have touched me. Partly because his death makes my own mortality appear so tenuous. Partly because he had done so many kind and thoughtful favors for me. Partly because I admired so strongly his intellect and his unique capacity to strategize legislative efforts.

But mostly because Vic worked himself to death on my behalf. And I mourn the fact there are a lot of bureaucrats out there killing themselves, too, on my behalf, and at the same time, being lumped together, as was Vic, in every demagogic attack on government employees made by every pygmy politician that glories in the cheap shot.

Jerry Walkie Federal Times March 6, 1978



# New Staff Members

The following new professional staff members reported for work during the period November 16, 1977, through February 15, 1978.

Financial and General Management Studies Division	Igoe, Thomas P. Jeong, Henry Q.	Providence College Los Angeles State University
Federal Personnel and Compensation Division	Slowitsky, Joan Willis, Jo Ann	Hofstra University University of Georgia
General Government Division	Best, Alexander Dawson, David Tarosky, David	Columbia Union College New Hampshire College McGill University
Human Resources Division	Berkowitz, Steven J.	George Mason University
International Division	Natalicchio, Joseph Stepp, William	Columbia University University of Maryland
Logistics and Communications Division	Kaeppel, Paul	USAF Institute of Technology
Management Services	Bowling, Timothy Organt, Gerald	Drew University Georgia Tech
Office of Administrative Services	Marcus, Geoffrey	Arizona State University
Office of the General Counsel	Blatch, Maralyn	Marquette University Law School

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#### NEW STAFF MEMBERS

	Crowley, Leonard	George Washington University
	Jacobson, Jeffrey	South Carolina Law School
	Kramer, Stuart	Tulane University School of Law
	Lunter, Gary	George Washington University
	Pogany, Andrew	Case Western Reserve University School of Law
Office of Librarian	Merryman, John S.	Beloit College
Office of Personnel Development and Services	Kane, Julie Kelly, Kathleen Orlando, Ann Urban, Judith	Madison College Immaculata College State University of New York University of Maryland
Office of Publishing Services	Luckenbaugh, Margie	Shippensburg State College
Program Analysis Division	Peterson, Cathy	University of Michigan
Procurement and Systems Analysis Division	Walne, George	Texas A&M University
REGIONAL OFFICES		
Atlanta	Williams, Clark	Alabama State University
Boston	Hamilton, Roger	University of Southern California
Cincinnati	Leary, Ann Wise, Dennis	Boston State College Central State University
	Shapiro, Mary	Internal Revenue Service
Washington	Chock, Lin-Lin	University of Texas
Washington	Bennett, Marian	George Washington University
	Kearns, David	Tulane University
	Lusby, Gordon	University of Maryland



In reading the summer 1977 issue of *The GAO Review*, I was intrigued by the diversity of two articles, both dealing with workpaper preparation. *Francis Doyal*, stressing the importance of format as well as content, insists on mounting of documents, etc., and *James Barnhill*, stressing the need to streamline the files, would not mount, would write on both sides of schedules, etc.

I have no bone to pick with Francis. Having orderly, well-documented files of working papers makes the report easier to write and expedites review. But I remember a number of instances when nonstandard, sloppy-looking papers served our purpose well. One instance will suffice to illustrate.

Soon after regional offices received permission to review the pricing of fixed-price contracts, I was managing a review at a contractor's plant. I do not recall the entire audit staff, but the site supervisor was *Carl Deibel* and one of the staff members was

James Bowers, now working for the Defense Logistics Agency.

While working in one of the contractor's departments, James found some important information. Not having large enough paper with him, he borrowed an odd-size sheet from the contractor and more or less scribbled the information on it. Jim intended to recopy the data on standard-size, 14-column paper, but Carl, wanting to get on with development of the finding it indicated, decided to use the paper as it was.

That sloppy-looking paper became the focal point for the development of a finding that the contract was significantly overpriced. The audit staff referred to it frequently in developing the finding, as did the Washington staff in processing the report.

Upon receipt of the draft report, agency officials concluded they had been had, and turned the matter over to the Department of Justice. It became my lot to explain the situation to an FBI investigator assigned to the case. This meant, among other things,

showing him the working paper. By this time it was wearing through at some places where it was creased, and looking even worse than I remembered it, but still stoutly doing its job of supporting GAO's report.

Although I wished at that point that Carl had let Jim recopy that paper, it resulted in the Justice Department making a recovery equal to the overpricing. Another nice result was that both Justice and GAO could claim credit for the recovery.

Arnett E. Burrow Assistant Regional Manager Kansas City

The following letter was received by the Comptroller General from Randy H. Hamilton, Dean of the Graduate School of Business Administration of the Golden Gate University in San Francisco.

In the fall 1977 issue of *The GAO Review* there is reproduced on page 27 a chart purporting to show "Federal Grants to State and Local Governments." It is the usual chart produced in the annual Special Analyses of the U.S. Budget.

That chart is one of the banes of my "intergovernmental life," and I am upset with it each year as it appears.

It purports to show a tremendous increase in "federal grants to state and local governments." It does not. The tremendous increases that it shows include transfer payments to individuals from the federal government—which are not quite the same as grants to "state and local governments" qua governments.

Some day, I would like to see a similar chart showing the amount of actual bucks that folks in state capitols, county courthouses and city halls get to use for federally and/or locally sponsored governmental programs per se. I've done a good deal of budget analysis of these charts over the years and frankly am amazed that GAO would republish the chart without some explanation of the fact that transfer payments to individuals are bulked in it with what one normally thinks of when seeing the chart's title.

In addition to transfer payments to individuals, I do not think that food stamps or agricultural commodity price support programs or the budget of the National Council on the Arts and Humanities or school lunches or the budget of the Corporation for Public Broadcasting or the budget for the American Printing House for the Blind or payments supporting the nation's capital (the District of Columbia) or support for Gallaudet College and lotsa other things really constitute "federal grants to state and local governments.'

Consequently, someone in your shop might go through the line items that constitute the basis of the amounts shown in the charts and differentiate between amounts that are truly grants to state and local governments and

those which are included in the "bottom line" which are not so by any stretch of reasonable imagination.

The Comptroller General's reply:

Thank you for your letter of January 17 concerning the Federal aid chart which was used to illustrate an article in the fall 1977 issue of *The GAO Review*.

I understand your problems with the definition underlying that chart, but I'm not sure those problems can be overcome. Given the fuzziness of the objectives of most Federal programs and the close (sometimes almost incestuous) relationship between the administering groups in Federal, State, and local governments, it would be virtually impossible to develop a "clean" definition.

Almost no programs provide money with no strings at all; even general revenue sharing has some strings. On the other hand, almost every program involves some discretion at the State and local level; AFDC benefit levels, for example, are set by State law. Trying to draw a line based on the degree of State and local discretion does not seem feasible.

Similarly, I would not be very comfortable with a definition that excluded all grants intended to finance transfer payments. Historically, welfare has been a local responsibility, and while a major portion of the cost is now borne by the Federal Government, the money still passes through the hands of State and local governments. And those levels of government still have the primary say in deciding how much will be spent. To me, that looks like a Federal aid program.

In summary, I conclude that the OMB presentation is reasonably appropriate, provided it continues to provide enough supporting detail to permit analysis of the component parts. I think the tables in Special Analysis H do a pretty good job of that.

I hope this is helpful, but we may just have to agree to disagree. Incidentally, you may be interested in our recent report, "Changing Patterns of Federal Aid to State and Local Governments, 1969–75," and I am enclosing a copy.

#### Annual Awards for Articles Published in The GAO Review

Cash awards are available each year for the best articles written by GAO staff members and published originally in *The GAO Review*. Each award is known as the Award for the Best Article Published in The GAO Review and is presented during the GAO awards program held annually in October in Washington.

One award of \$500 is available to contributing staff members 35 years of age or under at the date of publication. Another award of \$500 is available to staff members over 35 years of age at that date.

Staff members through grade GS-15 at the time of publication are eligible for these awards.

The awards are based on recommendations of a panel of judges designated by the Comptroller General. The judges will evaluate articles from the standpoint of the excellence of their overall contribution to the knowledge and professional development of the GAO staff, with particular concern for:

Originality of concepts.

Quality and effectiveness of written expression.

Evidence of individual research performed.

Relevancy to GAO operations and performance.

#### Statement of Editorial Policies

- 1. This publication is prepared primarily for use by the professional staff members of the General Accounting Office.
- 2. Except where otherwise indicated, the articles and other submissions generally express the views of the authors, and they do not necessarily reflect an official position of the General Accounting Office.
- 3. Articles, technical memorandums, and other information may be submitted for publication by any staff member. Submission should be made through liaison staff members who are responsible for representing their offices in obtaining and screening contributions to this publication.
- 4. Articles submitted for publication should be typed (double-spaced) and generally not exceed 14 pages. The subject matter of articles appropriate for publication is not restricted but should be determined on the basis of presumed interest to GAO professional staff members. Articles may be submitted on subjects that are highly technical in nature or on subjects of a more general nature.

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