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Evaluating Governmental Performance: Changes and Challenges for GAO

A Series of Lectures
Delivered at the
United States
General Accounting Office
1973—1975

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Foreword

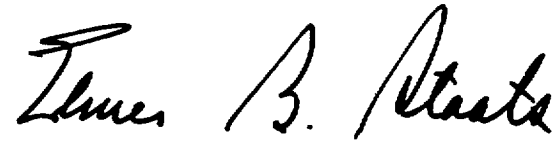
During the 50th anniversary of the General Accounting Office in 1971, we arranged for a series of 15 commemorative lectures for our professional staff on the theme of "Improving Management for More Effective Government." As a result we had the benefit of the most current and independent American thought by recognized leaders from many fields on management concepts, systems, and controls as well as other matters relevant to GAO's broad mission. The lectures then were published as a book for continuing use and copies were widely distributed.

So successful were these 50th anniversary lectures that we started another series in 1973 with the underlying theme of "Changes and Challenges for GAO." Obviously such a theme is of great importance to us with our continually broadening scope of operation. We constantly have to keep in mind such questions as:

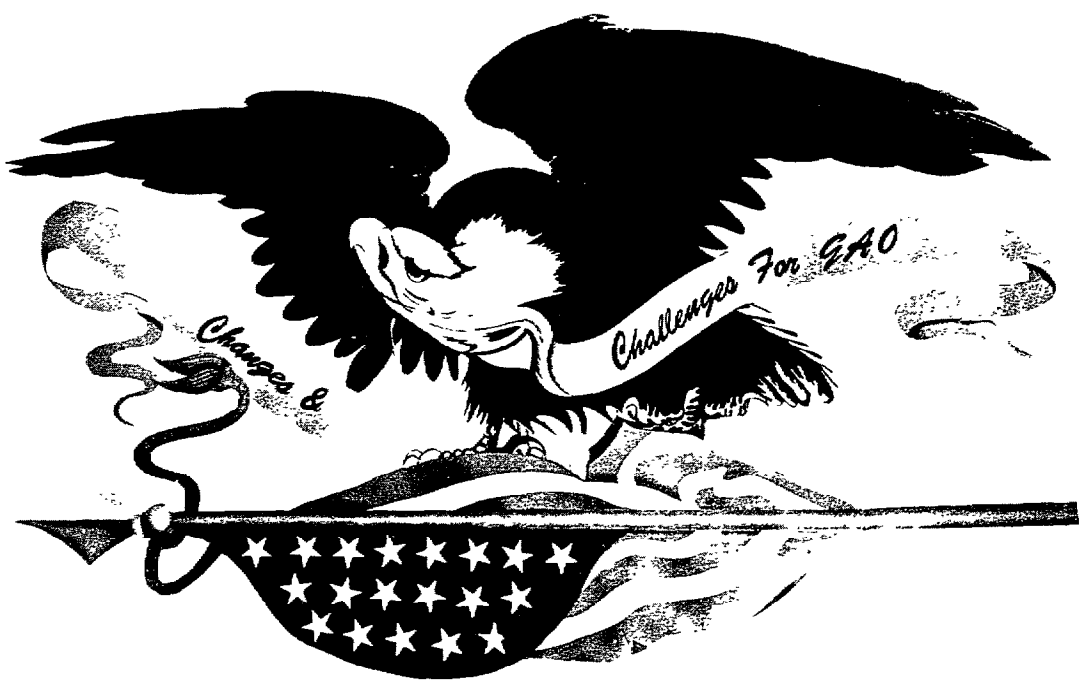
What changes are taking place that will affect the future direction of GAO efforts?

What challenges does GAO face as an agency in the legislative branch of the Government?

To help obtain answers to these questions, we invited prominent leaders—thinkers and practitioners—from a variety of fields to address our professional staff on subjects in which they were especially knowledgeable. The wealth of information presented again justifies preservation in book form. We have compiled the lectures and accompanying discussions so that the material can be more widely and readily available to all members of GAO and others who may be interested.



Comptroller General
of the United States
July 1975


Changes &
Challenges For GAO

Contents

Richard Bolling
Member of Congress
from Missouri

Richard Bolling was elected to the 81st Congress in 1948 as the Representative of the 5th Congressional District of Missouri and has been reelected to that position ever since. During 25 years in the House, he has consistently been concerned with change in the House power structure and major reforms of the House as an institution.

He is a Democrat and a member of the House Committee on Rules. In 1973 he was named Chairman of the Select Committee on Committees of the House to study the functions and powers of all House committees and recommend proposals to achieve more efficient and effective organization. He is also a member of the Joint Economic Committee, is Chairman of the Subcommittee on Fiscal Policy, and serves on the Subcommittee on Urban Affairs and the Subcommittee on Consumer Economics.

Congressman Bolling has written two books on congressional reform: House Out of Order *(1965) and* Power in the House *(1968), as well as numerous articles. To further public understanding of the Congress, Congressman Bolling explains the role of a representative in a short documentary film entitled "Three Hats," signifying a Congressman's representation of (1) his constituents as individuals, (2) his district, and (3) his Nation.*

Congressman Bolling was born in New York City, educated at the University of the South at Sewanee, Tennessee, where he received B.A. and M.A. degrees, and did further graduate work at Vanderbilt University. Prior to his election to the Congress, he was a teacher and coach at the Sewanee Military Academy and then held the positions of veterans adviser and director of student activities at the University of Kansas City (Missouri). During World War II he served in the U.S. Army, where his last assignment was as assistant to General MacArthur's chief of staff.

Congressman Bolling is a senior member of the House of Representatives, and I use that word in a complimentary sense of the term because he is senior in experience and senior in the status that he holds in the United States Congress. He has represented the 5th Congressional District of Missouri since 1948, and thus has served continually in the House for more than 25 years.

Our speaker was born in New York City and was educated at the University of the South, at Sewanee, Tennessee, where he received B.A. and M.A. degrees. He did further graduate work at Vanderbilt University in Nashville.

Congressman Bolling is a member of the Joint Economic Committee, with which we have a great many relationships. He is also an influential member of the House Committee on Rules which considers rules changes and most legislation before it is debated in the House of Representatives. In this latter capacity, he served as leader of the House conferees who, together with the Senate members, recently approved major budget reform legislation which will have a substantial impact on our Office and the way the Congress appropriates funds for the executive branch.

Mr. Bolling for years has led the fight for congressional reform and has written two books on the subject: *Power in the House* in 1965 and *House Out of Order* in 1968. In 1973, House Speaker Carl Albert named Mr. Bolling Chairman of a new Select Committee on Committees of the House. Over the past year this Committee studied in detail the functions and powers of all the House committees and the resources available to these committees, including GAO. The Committee recently made recommendations, designed to achieve more effective and efficient organization of the House. Judging from the title of his lecture, I am sure we will be hearing more on this subject today.

—Comptroller General

Can the Congress Reform Itself?

Congressman Richard Bolling

I started out my career in Congress on what was then called the Expenditures in the Executive Departments Committee. I can't say I asked for it—I tried very hard to get on another committee. My reputation as half gangster and half communist had preceded me and I was knifed very hard in the Committee on Committees. Later, that reputation was discovered not to be precise and I moved on to other committees. I often wondered if I was wise to have left the Government Operations Committee when I was given a choice of the Banking and Currency Committee or the Government Operations Committee in 1953, when the Democrats went into the minority. Some of my friends in Congress recently have complained so bitterly about the notion of losing a committee assignment that I only very late in the game reminded them that quite a few of us had lost committee assignments in those years long past.

I should add to what has been said about me, for those of you who don't know, that I come from the late President Truman's home county, Jackson County, Missouri, although I didn't represent him. He lived in Independence and my city—Kansas City—was a suburb of Independence, according to him. But after he decided that I wasn't half communist and half gangster, he befriended me and I learned most of my politics and a good deal of my view, my refined view, of the public service, from him. Because of that I had the quite extraordinary opportunity to work with Sam Rayburn who was really my mentor in the House. I had an opportunity to be at the center of power without having any for a very long time, certainly during the last 10 years of his life. So I approach things from a relatively definable point of view, much influenced by both Mr. T. and Mr. Sam. They are the ones who are to blame although Mr. Rayburn consistently resisted any change in the institution of the House of Representatives. They are the ones to blame for my persistence in trying to modernize the institution of which I am a part.

The Committee System

I approached that really sort of pragmatically when I decided in the late fifties that the situation that existed in the House was intolerable—whereby the committee system had taken ahold of the institution so completely that the party aspect of the congressional process had disappeared. The result was that the legislative business of the United States was most often decided in private by a small number of a coalition, usually of conservative Democrats and Republicans, who decided what legislation would be allowed to enter into the legislative stream. I didn't think that there was anything immoral about that. I just didn't think that it was very good for a democratic process which is supposed to be open and present the people an oppor-

tunity to observe what their representatives stand for.

I decided that there had to be some way in which to correct this operation where most of the legislative decisions were negative and made in committee by a very few people who were invulnerable to the political process. It didn't seem like a representative process at work; it seemed like a perversion of the representative process.

Role of the Party Caucus

So I came to the notion that the party caucuses should play a role. It didn't come out of the air—it came from a study of the history of the Congress. I learned that at one time the congressional caucuses had actually nominated the Presidential candidates in the early part of the nineteenth century. I went over what I could find. It isn't much, as the literature is very inadequate. I discovered that in the beginning of this century after the overthrow of Mr. Joe Cannon who had been the Republican Speaker of the House, the caucus played a major role. It did, in fact, pass most of President Wilson's program.

You will remember, perhaps, that Bennett Champ Clark from my state had been a candidate for President and had actually had a majority of the Democratic convention eight times before Woodrow Wilson got the nomination in 1912. Thus the relations between Clark and Wilson were mildly strained when Wilson became President and Clark was Speaker. As a result, a very remarkable man named Oscar Underwood of Alabama took over all the power that had been taken away from Cannon. He did it in a very ingenious way. He was the majority leader and he had himself made Chairman of the Committee on Ways and Means. He had the Democratic members of the Committee on Ways and Means turned into the Committee on Committees, and he used his various powers as majority leader and as Chairman of the Committee on Ways and Means and as Chairman of the Committee on Committees to do exactly what Cannon did. He was the leader of the Democratic party and he used the caucus as an instrument. It ratified the propositions of the Committee on Ways and Means. So he had the power of getting recognition, not giving it, and Mr. Clark was sort of serving time and was part of the Brain Trust but he wasn't the active leader. He was recognized as majority leader. He controlled the key legislation, which in those days still was the tariff. He controlled the Committee on Committees and he controlled the caucus, so he really had a lot to do and I am sure he and Mr. Wilson must have had wonderful negotiations as they decided on what part of the New Freedom the Congress was going to pass, and that is what happened.

It was really from that that I got the notion that we ought to begin to get the caucus to play along—not that the caucus could ever force the views of a minority on the majority of the House, but that the caucus could assure that the majority party would have an opportunity to get its program to the floor of the House for consideration—not passed, for there is no way on earth to coerce the average member of the House of Representatives to vote against his strongly held views, or the strongly held views of his constituency, unless he decides to retire, and some do.

Some really ought to decide to retire on an issue, because there are some issues around that are important enough to retire on, and that is another point that has to be made. Throughout much of the history of Congress there have been a great many people in the House and in the Senate who were willing to retire on an issue. It is a damn important qualifica-

tion of a good public servant and we ought to remember it. It's one of the things we should require of our public servants—the notion that you do not hold a job in perpetuity and you don't own the elective office. Maybe you could own another kind of job but you can't own an elective office. It's terribly important that we begin to require that.

So, all that those two books of mine say is that a majority of a majority ought to have the right to get its program to the floor. Now I am not going to go into the intricacies of how that is accomplished. Today you see the caucus being very awkwardly used and I say very awkwardly not because I am affected by it as I am, but because it isn't very well thought out.

Having given you a little background on my thinking on that aspect of the form, I would like to quickly get to my involvement in a variety of reforms in this Congress. One I really believe is reform is the change within the Democratic caucus in the attitude toward one's possession of a position on a committee and one's responsibility to the caucus since one is a creature of caucus and conference in one's committee assignment. One's responsibility is to the majority of that caucus on an issue, at least in terms of procedure and the whole business of reorganization is really what we have been involved in during the last 16 months.

The Select Committee on Committees

The Select Committee of which I am chairman was conceived by Speaker Albert, not in all its detail, but as a notion. After we had talked about it for about a month in the latter part of 1972, we brought aboard the then minority leader and got his views. We decided somewhere along the line and it was somewhere late in that process that Mr. Albert asked me to be chairman. We decided on the kind of committee: a 10-man bipartisan committee with the money split down the middle, the notion being that when you organize and reorganize you should do it without regard to faction. We were perfectly well aware that some of the Democrats would be unhappy about that, but we thought that if you wanted a permanent change you better have it built in and satisfactory so that you didn't build in your death at your creation which is too often the habit of partisans. They make the mistake of deciding that they are going to get too much advantage out of organization and reorganization and they get advantage for a little while and great disadvantage for a long while. I think that is really the history of partisan reorganization.

We came into being after a pretty good floor fight. The people who had a vested interest in that kind of thing weren't very happy with us, so they tried to knock it off. Mr. Hays' Committee on House Administration wasn't very happy. They shouldn't have been. They tried to prevent it and they were also outraged because we didn't allow ourselves to be limited by having to go through them for money. We went completely around them. I signed the vouchers and the Speaker countersigned them. We avoided the usual process for the obvious reason and we went through a very long exercise, which I won't describe, and arrived at some conclusions. We had a lot of good hearings and a very useful, I think, set of discussions. In the final stage, we came up with a recommendation—in the middle of March—for a massive shift within the institution, particularly in its committee structures, and with many other things that are perhaps even more important than the jurisdictional things. In the process I fell upon good or bad terms, depending upon what kind of situation you like to have confront you.

Budget and Impoundment Control Legislation

As the third-ranking member of the Committee on Rules, I fell into the job first of dealing with anti-impoundment legislation and second of dealing with budget reform. On anti-impoundment I had some greater responsibility for ending up with the chore, because I felt it was something that we had to deal with systematically and early, if the Congress was to understand its situation vis-à-vis the executive. That was at the beginning of last year, as we began to think out the kind of legislation that was necessary to return the situation to a greater rationality with a greater attention to what I think the Constitution implied as to the separation of powers. We passed a product on impoundment very narrowly in the House of Representatives, quite a conservative product. I'm not going to go into the details of that, but it was the exact opposite of the Senate approach. The Senate approach said in effect no impoundment under any circumstances —leave it to the courts. Ours was to treat almost everything as impoundment and give yourself the opportunity selectively to take up the few that you think are worth taking up. Then you have a one-house veto. There is clearly a very considerable amount of disagreement that could exist in those two differences.

Then we got the budget reform proposals of that 32-man joint committee. They came up with a unanimous report which clearly couldn't pass the House. We had to try and figure on the House side how to repair it so that the noble experiment could continue—and I use the word noble not sarcastically; I mean it. That is where I fell upon good or evil times, depending upon your view of it. I thought it was good, although it was much too much work for one human being to undertake. Because of a series of accidents, the fact that my chairman was brand new, and also preoccupied, and the second-ranking member ahead of me in the Rules Committee was very courageously going through the incredible task of getting two new hipjoints installed—which is really a remarkable thing to do at the age of 71. He is now again a happy dancing Irishman, instead of a very unhappy, sleepless, mean old man. He was out of action so it fell upon me as the next ranking Democrat to try to fill in.

We finally got a bill passed and it was not a bad bill. I don't believe it represents anything terribly significant, even when we pass it through both the House and the Senate. It just is one more opportunity for perhaps the Congress to work a little better. And I will say that on the floor of the House when I present the bill and when I present the conference report. It's just an opportunity. It may be like the comparable provisions in the Reorganization Act of 1946. It may be honored in the breach—it may never happen. We may appoint a committee and we may establish a Congressional Budget Office but it may never fly; it may be like the dodo bird; it may be there and we may hear about it for a while but it just may never work.

If it comes into being, as I suspect it will, it will have an incredibly difficult start because we will be taking people who think, when they campaign in November, that they are telling the truth when they say they are going to massively alter programs in March—people who do not remember or who do not know how complex the flow of funds is in the programs in the budget process. I'm not being critical about my colleagues behind their backs—I say these things on the floor. I say that this is an experiment where we move from a situation where we are wholly unrealistic into, hopefully, one where we are much more realistic and are looking down the track and

understanding that what we do in one year has very little effect on that year, but more effect on the next year, a very large effect on the third year, and perhaps most effect on the fourth and fifth years, although even that is making it a little too simple. Well, we are trying to move ourselves from Nowheresville to Somewhere. And it's a worthy experiment.

Unusual Conference Process

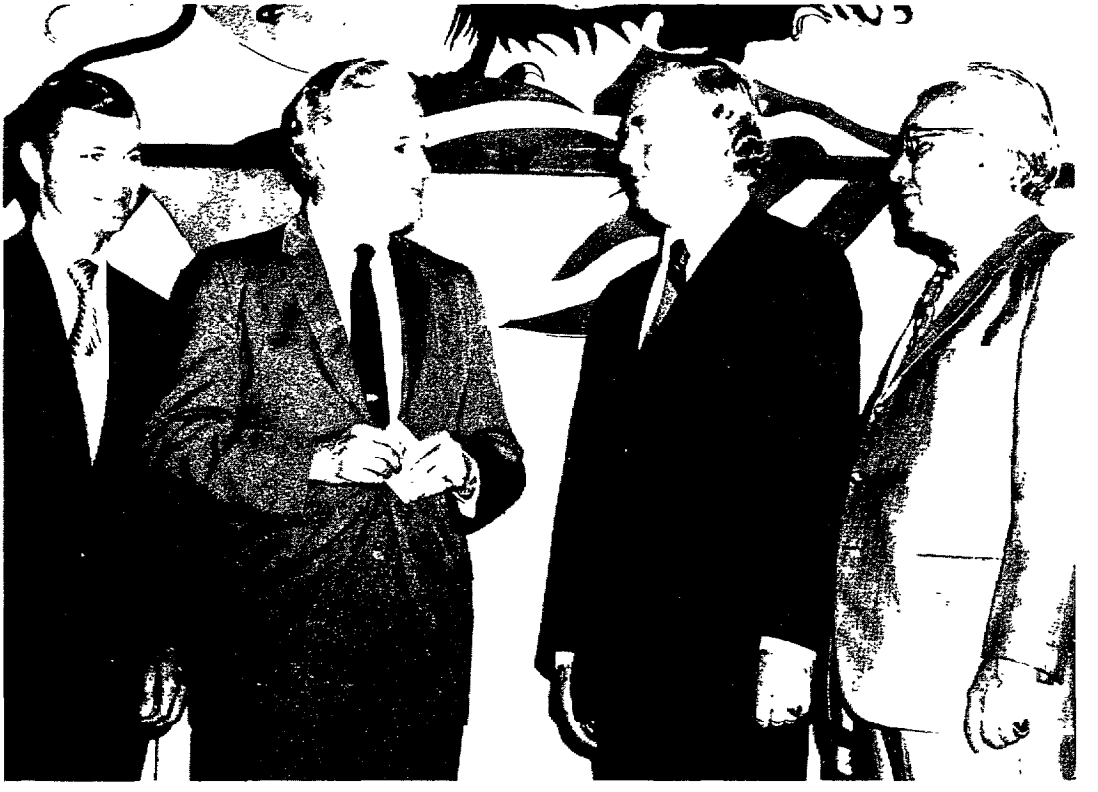
We got the conference report in a rather unique way. I haven't had a lot of experience with conferences, but as the Chairman of the House conferees, I got to the first one leading 7 House conferees on this budget-anti-impoundment bill and I suddenly realized what it was like to be an innocent member of the House facing 14 Senators. I decided, looking behind me at my 6 and looking ahead of me at the 14 who I knew spoke for another 20 who had their mark on the bill as it had passed the Senate, that we were going to have to use some rather remarkable techniques to get anywhere. So, we never had another conference again until just the other day and then we unanimously agreed on a very excellent document. I will leave to your imagination what went on in the months between. But in any event, it worked, and it was a very good product, very carefully worked out, worked out with great pain with an enormous amount of give-and-take on the part of a great many Senators and Representatives obviously working through agents. It was a brilliant staff performance on both sides. We were perfectly frank about it when we met only for the second time and agreed unanimously. It was a staff product and, we think, quite a good product.

The Democratic Caucus and the Proposals of the Select Committee on Committees

Now, in the meantime, my major task, having been tentatively reported in early December and as I told you finally reported in the middle of March, ran upon hard times. I had sent back to the drafting table back in January the resolution creating the Select Committee on Committees. I had done it because I didn't want the Select Committee to have the opportunity to report directly to the House floor. I wanted it to go through the hurdles—and for a very pragmatic reason as well as for some theoretical ones.

The principal originator of the Select Committee was the Speaker of the House. And the Speaker of the House is also the Democratic Party leader, of course. He is nominated by the Democratic Caucus. I had no intention of having the man who had created the committee being the victim of the committee, if the committee, a bipartisan committee, produced something—and it produced it unanimously by the way—that was offensive to a majority of Democrats because that would directly affect the Speaker. It would be very unpleasant for a Speaker in a Congress to have a piece of reform or reorganization legislation passed by a majority of the Republicans and a minority of Democrats. It surely would not last.

It surely would be like the Reorganization Act of 1946, in which I did not participate but about which I heard in 1949 and heard more about in 1950 and 1951. In those years I began to hear them laugh about the Reorganization Act of 1946 because they weren't honoring its important elements. I didn't want that to happen—and I didn't want it undone. So, we went to the Democratic Caucus at my insistence and we fell upon very funny and difficult times. I am probably the only person in the House who can go through such an experience with relative equanimity but I am blessed with a rather peculiar pattern on my back. I now have scars on scars on scars, so the third set doesn't really hurt very much. In that caucus which is a secret caucus to



Congressman Richard Bolling, lecturer at GAO on June 7, 1974 (second from left), with Elmer B. Staats, Comptroller General; on left, Roger Sperry, Legislative Attorney; on right Smith Blair, Jr., Director, Office of Congressional Relations.

which the press is not admitted, the brothers who opposed the proposition took the further precaution of having a secret ballot. And they managed by a miracle of—let us be terribly charitable —they managed by a miracle of error to get a secret ballot without a vote, without a public vote. So, there is no record of who voted for the secret ballot. And there is no record of the vote whereby the proposal of this unanimous bipartisan committee was shunted off to a committee of the Democratic Caucus called the Hansen Committee, with a date to report back on the 17th of July, the regular meeting of the Democratic Caucus in July.

Can the Congress Reform Itself?

Now the title of my lecture is "Can the Congress Reform Itself?" And I can't really tell you. But I can tell you what I think and what I think is that it can and will and must. I'll conclude by telling you why I think it can and will and must. If I sound more like an academician and a philosopher than a practical politician, then let me assure you that I am relatively practical. You don't survive 13 elections in Kansas City, Missouri, if you are an impractical fellow.

The country is in a very curious condition today. The recognition of that condition by the electorate, at least in California, is very clear. A most remarkable proposition on reform, on cleaning up the relationship between lobbying and campaign expenditures, on cleaning up the relationship between money and politics, on cleaning up the relationship between legislators and public officials and lobbyists passed two to one out there. I

think it is Proposition #9 and it's really probably too drastic but it may not be because it carries a message—and the message is that for a variety of reasons, and Watergate is only one of them, the American people are fed up with the way their system works. Now I have known that for a very long time. But they haven't been as fed up as they are today. They are absolutely fed up. And they are fed up not only with the people that run for office—they are fed up with all the institutions. They perceive rightly or wrongly that those institutions don't work for their benefit. They are saying so rather loudly and clearly. And the Democrats who think that they are saying only that those institutions don't work because of Republicans have lost their minds. What they are saying is those institutions don't work and none of you bums are doing a good enough job.

The Institution of Congress Must Survive

Now that is why I believe Congress will reform and reorganize itself because very few of us, whether we are stupid or even the very few of us that might be venal, want to lose the job and the institution at the same time. The institution of Congress is not going to survive unless the people perceive it as being of use.

The people are shocked by what they have heard of the so-called Watergate affair and they are watching the Congress with great suspicion. Now, what the Congress will do about that is not the point. They are watching the Congress with grave suspicion because they recognize that the Congress has not functioned vis-à-vis the executive. And it may be that they even recognize that the Congress hasn't functioned effectively vis-à-vis the executive for quite some time. They also recognize that the Congress does not function in a timely fashion to take care of their particular problems.

They know that it is ridiculous for an institution to still be talking about an emergency energy act long after many of the people out there think that the emergency has passed. Of course, they are dead wrong. But they have no reason in their mind to believe us when we say it is real because we haven't done anything about the one that they knew was real, and they think we are ridiculous. Now, if they continue to think this, we are going to lose the fundamental system because I don't care what any technocrat says, there is no evidence on earth that any system of free government can survive without a representative system and without a legislature that is representative as a check. There aren't very many free governments that have survived. There is no absolute assurance that this one will.

But it is clear from the events of the last few years that we cannot depend on the executive exclusively to preserve freedom. And we cannot depend on the press and the courts to check the executive to preserve freedom. We must have a functioning legislature. It doesn't make any difference how impossible that may seem to anybody—it has to be made to work or somebody has to come up with a whole new idea of how to maximize freedom. It isn't going to be the benign this, or the benign that, because there is no guarantee that something that is benign at the beginning will end up by not being malign. There has to be a way in which the people can decide whether they are going to suffer that government to continue to exist in its form.

I think that brings you back to the Congress—inept, awkward, difficult, inefficient—it is the last repository of the peoples' freedom. And that isn't a political statement—that is a scientific statement, unless somebody comes up with something as an alternative. We have to have some kind of balance and we have

to have some kind of increased efficiency and effectiveness because they are not going to tolerate an institution that cannot anticipate increasingly dangerous problems, and at least solve a part of the problems in advance instead of allowing the crises to occur. So perhaps as an act of faith but more as the act of the intellect, I believe that the Congress can reform itself but it is going to have to have an awful lot of help from the people.

DISCUSSION

In light of your concluding comments about the attitudes of the American people toward the representative governments, do you have a view on televising the impeachment proceedings? What are the pros and cons?

Mr. Bolling: Yes, I have a view on that, and the view is one of sort of desperation. I think we probably ought to televise them. I think that the people ought to have the opportunity to see it because the people of the country are enormously suspicious of things they don't get to see. I don't think it will be done very well, and I don't think it will be watched very well, but I still think it ought to be televised. That is sort of a simple-minded view, but it is the product of an enormous amount of thought.

A long time ago, I supported Rayburn's position that we shouldn't allow radio in. But the more I saw and the more I thought about it, the more I came to the conclusion that the only alternative was to let them in no matter how messy, no matter how badly done, no matter how loaded against individual members—simply because the public is so suspicious of what they don't see.

That applies all the way across the board. I've had a change in my view on disclosure of personal finances. I think that it is an outrage that a public official has to be something other than a citizen. I think I ought to have the same rights of privacy as other citizens. But in an emergency like the one we face today, I think it is going to turn out to be necessary over time—I am an author of a bill that goes well beyond what I believe makes any sense in terms of disclosure of private matters. It goes well beyond what is needed to establish a conflict of interest or what have you, but I think that when the time comes I will probably turn loose everything, including things that legally I have absolutely no control over simply because I think we are in a crisis of confidence that requires tremendous openness. Now, I think I could make all kinds of rational arguments, constitutional arguments against that, and I think that I can make all kinds of rational arguments against turning the impeachment thing into a spectacle but my own humble view is—open it up, open it up, take your chances on it—because the people are fed up with it.

In light of what you said about the congressional hypocrisies, can you comment on the apparent discrepancy between the Ways and Means Committee and the Rules Committee on the oil depletion allowance?

Mr. Bolling: Yes, I would like to comment on that. I went through, I think, the most unpleasant experience of my life about this time yesterday morning. I am a member of the Committee on Rules, and before the Committee on Rules yesterday came a very nervous gentleman named Mills. We were surprised that he came. He said he wouldn't. And he came with a fascinating proposition which was a reversal of every appearance he had ever made before the Rules Committee. He came to tell the Committee that he didn't want a rule—that he wanted to use the privilege that exists in the rules of the House to bring a matter on raising revenue to the floor under the old rules.

The old rules are the hour rules which means that any member of the House can have one hour in the debate and that any amendment is in order that is ruled germane. I haven't had an opportunity to look at the detail to see whether it really opens up the whole of the tax code, but it opens up part of it. Clearly, his answer to the caucus' direction to the Rules Committee, that the Chairman of the Committee on Ways and Means seek a modified closed rule which would make in order an amendment to the energy tax bill that phases out depletion on oil and regulated gas in the next three years, beginning with this year, would make in order an addition to the bill itself. It is a great amendment which abolishes depletion, retroactive to the first of the year—this was his answer.

I don't know whether it is an answer. That is one of the reasons why I said very early on that we were now awkwardly approaching the problem of how to use the caucus. Because that rule 17 of the caucus, which provides for the procedure that resulted in the vote that directed Mills to seek, and the Democratic members of the Rules Committee to grant, the modified closed rule giving Green his opportunity to offer his amendment has never been tested. This is the first test.

My own view is that Mills is bound by that and that I as a creature of the Democratic Caucus am bound by it. It is not a question of a vote on substance on the House floor—it is a question of a committee vote on procedure. And I am a creature of that caucus because the caucus put me there by a *pro forma* ratification by the House of the committee members. But I am nominated by the caucus. So, the principal has a right to tell its creature what to do about the flow of legislation. That goes back to my theory in my books, so I think that fits.

I have a very interesting, intellectual question as to whether that caucus has a right to tell me not to allow the House to work its will on an additional matter. That clearly could involve the position taken on cutting off the discussion of the Select Committee. It could, and I am not sure where I will come out on that or how I will deal with it. I don't want you to think I am talking about dealing with one situation one way and one the other because what I believe is that all of the institutions of the House are creatures, except the House itself. It is the only constitutional body. The committees are creatures of the House; the caucuses are parts of the House. The only entity that can act is the House. And clearly, I believe that the committee structure is necessary if you are to maximize efficient functions; and clearly I believe that the caucus function is necessary if you are to have any reality for the peoples' opportunity to choose between policies. That basically is the problem that the caucus is trying to face.

Now, they didn't know they were going to face it. They didn't know they were going to meet this kind of resistance. But I think I am directed—can be directed to bring something out. I am sure I can be directed to hold something in, but if I had to make a decision, I would always come back to the parent institution and say, "That's the one that gets the final decision." Now if the caucus makes a mistake, it will be overruled by the parent institution, if the parent institution can get to it. I don't think I am for a caucus that can keep the parent institution from getting to a vote on it. In other words, I believe that you still have to retain the right of a determined majority to work its will. But there is no conflict between that and the requirement that Rules Committee members grant to the House the right to vote on the Green amendment.

How do you view the caucus getting into party proceedings today and developing a legislative program?

Mr. Bolling: Well, that is a curious thing. This is the time when maybe I really ought to be smarter and talk less. If you look at budget reform and you look at it seriously, you will find that, at some point in time, if you are a realistic legislator, there are going to be two or three alternatives about to be proposed to the House of Representatives. You are going to have in the first concurrent resolution a macroeconomic resolution, basically, with a small amount of priority fixing. Now the macroeconomics, at least, is going to be comprehensible enough so that there is going to be a conservative position and a less conservative position. There would probably be another position, or maybe two more positions. There is going to be the question of how much of a surplus you want to run, and there is going to be within that the question of how you are going to get the revenue, and how you are going to fund the deficit if there is to be a deficit, how are you going to finance it. Are you going to do it by increasing taxes over what is expected at the current rate, given the state of the economy? Are you going to do it by adding to the debt?

At this point, very clearly, there is going to be enormous pressure on the party agglomerations to have a position, because only one position is finally going to win in that concurrent resolution. It isn't going to be a nonpartisan event. It is going to be a partisan event. So budget reform impels some entity somewhere to come up with its alternative, which doesn't seem unreasonable, but it might conceivably be something that would be discussed in the caucus, in conferences; the caucus for Democrats and the conference of Republicans. It might be delegated by them but not to their members on the committee, because the members on that committee are going to be representatives of different views of different parties. Maybe they are going to try to reconcile it, but they are going to have to test their reconciliation somewhere. Maybe they will do it just with the Speaker, but that seems unlikely. Maybe they will do it just with the Steering Committee, but that seems unlikely. So, the likely place for it to happen might be the caucus or the conference. I am being very theoretical because we are going to have to test all of this out. This is why it is going to be so difficult to make the budget reform work. It is going to have that kind of intricate relationship and complexity.

To what extent are the lobbyists and special interest groups for or against reform in Congress? Are they involved in it?

Mr. Bolling: Oh, yes, I give the AFL-CIO full credit for providing the marginal power that defeated the Select Committee's reforms in the Democratic Caucus. I attribute that particular event to my own one failure on my part and one mistake, because fairly clearly, the establishment, the AFL-CIO, was in favor of reform and even willing to accept the notion of splitting the Education and Labor Committee when its agent testified before the committee. That testimony is there and clear and when Andy Biemiller appeared before the committee, he made it very clear that if the overall product did certain other things, the labor movement might be able to live with the dreadful notion of splitting education and labor, which incidently, surely would pass in the House of Representatives.

But, they decided at the very end that they were going to be against it. Now, we calculated in—at least I did—Mr. Mills' opposition to losing some power —Mr. Mills' and his committee's opposition. We assumed that the NAM would

come in on Mr. Mills' side on health. They did—they opposed it. We assumed we would be getting a lot of flack from individual members, mostly Democrats who felt that their territorial imperatives were impaired, and we got that. But the thing that killed us, not by much because 111–95 is not that big a margin, was the fact that the AFL-CIO establishment came in against us.

Now most of you are sophisticated enough to know that probably half of the labor movement supported the reforms. But the establishment was tipped over against us because the people that were violently opposed made louder noises than the people who were mildly for. And the lobbyists played an enormous role, and they will play an enormous role as long as there is an institution like ours regardless of how strict the controls over lobbying and campaign expenditures. The two are obviously related—that is the difficulty with the whole problem.

Some of you probably don't know, but I was also the papa of the first committee on ethics in the House of Representatives which hasn't done anything very extraordinary but it exists and does some things. The great dilemma there is what you do about lobbying and what you do about campaign expenditures and their relationship. You are still going to have lobbyists after you get that under control because the difficulty in dealing with this kind of legislation is that underlying everything else a lobbyist is exercising his rights—the rights of the people of the United States under the Constitution to petition. You cannot deny that right. You have got to allow that right and you have got to encourage it. It is a very difficult and complex problem, but you are surely going to have lobbyists and you should.

Concerning campaign spending and finance, the House seems to be reluctant to let anyone other than itself supervise the campaign financing and expenditures for House elections. Do you have any views on this?

Mr. Bolling: I sure do. I think it is ridiculous. Obviously, if you do your own supervising, you are going to set up a sweetheart contract which takes care of every incumbent and you only get into trouble when you haven't had two incumbents thrown into one district. Then it will end up as a power fight, not necessarily between parties but between something else. So clearly you have to have a certain kind of independence.

Now I happen to believe that you need the kind of independence that does not involve a full-time commission. There should be a full-time staff and a part-time commission, for reasons that I am sure are clear. If you have a full-time commission, you aren't going to get the kind of guys who are going to stay independent of everybody, come hell or highwater. You're not necessarily going to get it anyway but you could get it and you maximize the chance of getting real independence if you have a guy who is in no way dependent on that job.

Looking back on your 25 years in Congress, let's look at the hypothetical situation where the President gets impeached but not convicted. Where is the leadership in Congress to make changes, or will Congress go back to the same old grind?

Mr. Bolling: I see it historically and I would have to tell you at this point that I was trained first as an anthropologist and an archeologist. I moved then to history with a slight interest in literature on the way, and then quite logically went into politics. My views of the world is based on trying to understand where we came from. The thing about Congress is that it is terribly interesting if you try to study it. It is terribly hard to study because as I said earlier, the literature is no good—there isn't enough of it

and a great deal of it is about something that didn't happen but appeared to happen, which is true about most modern reporting on the Congress. Most of it is appearance and not the reality. That's true also about most of the economic studies—appearance and not the reality.

What happens is that the Congress goes along and refuses to change and then all of a sudden there is sort of a landslide. That's sort of what happened in the shift of 1910. Then it adjusts, usually with new leaders. I don't think anybody expected Oscar Underwood in 1909 to emerge as the power in the Congress in 1913. Now it didn't turn out to be wholly satisfactory to Oscar Underwood, I should say, because he later ran for the Senate. He wanted to get away from that place. But, as long as it was, it worked pretty well. Then it in turn deteriorated into this absolute seniority system which establishes the absolute control of committees which establishes the freeze on the flow of legislative policy. I'm not pessimistic about our being on the edge of a substantial shift. I don't know how it will come.

I haven't mentioned some of the other things I have worked on like the Reorganization Act of 1970. Perhaps the most significant thing there that nobody has really ever looked at is what was called in the beginning the record teller. It really should have been in the beginning called a record vote at the first amendment stage. Well that can change the whole habit of the Congress. As soon as you get to thinking about that, you have a Committee of the Whole—and up until we got that there was never a record vote in the Committee of the Whole—and you had terribly bad habits about not attending debate in the amendment stage because there was never a record vote. As soon as you got that record vote, and then you got electronics, you moved into a time where you might have a much stricter scheduling of the congressional business—where you would have, as we now have for the first time, a vote on suspensions.

We tried for the first time a technique of putting together a series of votes on matters that had been acted upon earlier, except for the final vote. The whole scheduling of votes in the Congress could massively shift and when that happens the whole work habits of the Congress could shift. You could have a much more rational scheduling. We explored a lot of this in the Select Committee's work. And all kinds of things can suddenly appear that are just barely incipient and may not work. You take the record teller for example. We passed the rule that everybody except me assumed was going to go into effect; I assumed that it wasn't. I assume that the opponents who were a substantial minority but not a very large minority when they had to vote in public, were going to try to kill it by process, and sure enough they did. They decided that the way to kill it by process was to only have one record teller line. This was before we got to the electronics system. It came out of phase. We had a record teller before we had electronics and they were just going to have one teller line for the record teller, as we used to have for the non-record teller. They were deliberately going to make that such a mess that we had to abandon the record teller because it couldn't work, it was such a mess.

Now how did that get resolved? Fortunately somebody was watching and the Speaker was apprised of the actuality of the situation and he just issued an order that the ruling from somebody stipulating there was just going to be one line was overruled. There were going to be two. You know that sounds ridiculous but the two lines couldn't be obstructed that effectively. They tried to do it and the first two or three times we did it you ought

to have seen them—frustrated, but still trying. They really tied us up. It took us quite a long time to get through but once we got through a few times that was the end of that and we had it going. But it is that kind of ridiculous, minuscule attention that makes changes.

In your study of reform, have you given any thought to changing or abolishing the seniority system and/or limiting the tenure of the chairmen of committees?

Mr. Bolling: That is a caucus matter. There are people who say it ought to be done by the rule of the House but, in my opinion, it may be done in the terms you are suggesting—by a rule of the House, but it will be done first, if it's done, in a caucus. My own view is that is the ideal way. The ideal way is to be so rational as to choose each 2 years who will compose each committee on the basis of ability and need. That's the way they did it in the old days when they had those so-called tyrants who incidentally weren't tyrants. They were leaders of groups, the ones that had survived the leadership fights.

I have always hoped that we would have sense enough to be rational about it. Perhaps the second or third man in the committee when they are over a certain age shouldn't be chairman and have those extra administrative burdens. If they still have all their marbles and can still function, then they will probably have enormous influence as ex-chairmen. I don't think there would be anything disgraceful to serve at 71, or 72, or 76, or 77, whatever the cutoff date was. As the second man, no longer chairman, I would suspect that the ones that are really able would have enormous influence. That might be a solution.

But I think we have got to get people to understand that the caucus chooses the members of the committees first and gradually gets to this step second. I don't think we ought to do it legislatively because we have a two-party system and I think we should retain it. I have made some study of the multi-party systems of other countries, and they rather discourage me. All the parliamentary systems are in trouble.

I would rather not get to a cutoff date on how old a person can be to serve as chairman. I'm dead against saying how old a person can be to serve as a representative. I happen to believe that John Quincy Adams was much too valuable to have lost because of an age limitation. I would rather have had John Quincy Adams as a member of the House and gotten rid of a whole flock of people who were senile before they had left. I feel the same way about Rayburn. I think one or two or three exceptions in 200 years of history justify the notion that the people should have the right to choose their representative without regard to his age. But I do think the Congress has the right —and the caucus has the right—to limit the age of a person who is given an additional heavy administrative burden, as well as the honor, if that's what it is, of being a chairman.

What is the public's reaction to the two books you've written?

Mr. Bolling: Well, the first reaction is massive lack of interest. I think we earned the advance which wasn't very large on the first one. The first one, *House Out of Order,* is out of print. In that one I learned a little bit about how to write and secondly, quite a lot about publishers. The second one is coming out in the revised edition later this month. I don't believe it ever earned the advance, but it was a bigger one. But, the reaction is very good. It is very curious—and I don't want to be too personal about this —but a long time ago I spent 5 years doing an obscure study on United States-Soviet economic comparisons with Tom

Curtis as my opposite number in a subcommittee I used to have of the Joint Economic Committee. It was a brush-clearing operation in the fifties. All I really was trying to establish was the fact that, contrary to the then myth, the Soviet Union, if it decided to do so and concentrated its resources, could do practically anything we could do. That was against the conventional wisdom of those days, so when it finally occurred that everybody agreed after 5 or 6 years and a presidential campaign, it was quite an interesting development.

I came out of an academic background and I believe in ideas and the power of ideas. I was sort of convinced, based on who picked up some of the conclusions from that very long, complicated and difficult study, that if you wrote something and got it back into intellectual circles, specifically academic circles, it also made it available to people in other places and you had a reasonable chance, if the idea had any validity, of its spreading. Now I like to think that that worked well enough so that I played some role in getting people to pay some attention to the notion of a caucus. One of the ironies of my life as a reorganizer and a reformer is that wearing the hat of developer of the caucus as a tool, I watched my efforts at reorganization put away for the first time when a major policy matter was dealt with by the Democratic caucus in modern times. I happened to be the victim, if you want to put it that way. I felt rather pleased—how can you lose if you win one and lose one all at the same time?

The public reaction is rather interesting and I actually have gotten quite a good reaction from a very large number of people. But when you consider that tens of thousands are as nothing in a population of 200 million plus, you've got to keep it in perspective. But the public reaction is good.

Strengthening GAO

Mr. President, on June 21, Senator Ervin introduced a bill, S.2049, which I have cosponsored, to strengthen the General Accounting Office. This measure is the result of research by Congress and the GAO into ways in which this crucially important investigative arm of Congress can become even more effective in saving Federal moneys and in prompting Federal agencies to effect these savings. . . .

The General Accounting Office has repeatedly demonstrated the need for and the value of competent, impartial oversight of Federal spending practices. I believe that S.2049 would increase GAO's contributions to responsible government.

Senator Charles H. Percy
Congressional Record
July 14, 1973

Alan K. Campbell
Dean, Maxwell Graduate School
Syracuse University

Dr. Campbell received his B.A. degree from Whitman College in Washington State (Phi Beta Kappa) in 1947; his M.P.A. degree from Wayne State University in 1949; and a Ph.D. degree from Harvard in 1952. He was associated with Harvard University from 1950 to 1957 as Assistant Director of its Summer School, then Instructor and later Visiting Lecturer.

From 1954 to 1960 he served as Professor and Chairman, Political Science Department, Hofstra College. In 1960 and 1961 he was Deputy Comptroller, State of New York, and in 1962 Visiting Professor at Columbia University.

Since 1961 he has been associated with the Maxwell Graduate School of Syracuse University as Director of Metropolitan Studies until 1968, and as Professor of Political Science and Public Administration to the present. Since 1969, he has been Dean of the Maxwell Graduate School.

Dr. Campbell is a member of the National Academy of Public Administration, serving on the Panel on the Governmental Implications of Watergate; the American Society for Public Administration; the National Association of Schools of Public Affairs and Administration; the Committee on Economic Development (Research Advisory Board); and National Municipal League (Governing Council).

He is author, coauthor, or editor of 14 books, his most recent as coauthor of Taxes, Expenditures, and the Economic Base: A Case Study of New York City, *published by Praeger. He has written over 50 articles, monographs, and papers on widely varying aspects of urban affairs, finance, government, and public administration.*

Today we proudly recognize fellow staff members who have endeavored to continue GAO's growth and whose work has been characterized by outstanding competence, dedication, and enthusiasm during the past year. These awards are presented to honor the excellence of the contribution the recipients have made to public service.

We in GAO have a right to be especially proud of the exceptionally high standards we maintain despite pressures for increased job performance in a fast-changing social and technological environment. We have shown that we can stand progress and growth, but our traditions are nevertheless a source of great pride.

Among our traditions has been our concern to build our professional, technical, and support staffs on a strong foundation of dedication to public service for its own sake. We have long sought outstanding men and women who are willing to continue our work with a fresh outlook and a spirit of innovation, and build upon our proud record of service to the Congress and to the Nation. This search and development must continue unabated. With the caliber of competence and dedication exhibited by the employees we honor today, GAO will be able to continue to increase its ability to make a greater contribution to the Congress and to the public by improving Government in furtherance of our basic mission.

With us today, as our principal speaker, is a man quite well able to provide further insights into the needs of public administration, today and tomorrow, and the educational system's response to preparing the future leaders in the public sector at national, state, and municipal levels. Alan Campbell has been committed from the beginning of his public service to improved education for public administration and improving the lot of all of us who live as well as work in the urban and governmental environs of America. Over the last quarter-century he has served ably and with distinction.

Alan Campbell is concerned with improving our understanding of the role and impact of governing officials and their systems. He has been particularly concerned with how to improve them to achieve more useful application of the forces which affect and can change our society.

A beginning in this responsibility is the preparation of young men and women and the retraining of the young and not so young to assume more productive roles in the public sector. Also we must provide better understanding among current and soon-to-be leaders on productive relationships between career and appointed officials. It is on these issues, particularly, and others of his choosing, that I have asked Dr. Campbell to speak.

—Comptroller General

The Career Service and Responsible Government

Alan K. Campbell

A Decline in Confidence

The decline over the past decade of public confidence in government is confirmed regularly by the rate of voter participation in elections and by attitudes expressed in public opinion polls. Every public opinion poll describes them and the most recent mid-term election confirms the polls, with only 38 percent of potential voters bothering to vote—a level of abstention which must be seen as a vote of "no confidence." That amount of abstention by legislators in a parliamentary system would be a signal to the government in power to resign.

The "no confidence" vote in this country, however, is not a rejection of a party or of a particular public policy, but rather expresses a lack of confidence in government itself. This interpretation is illustrated by a recent public opinion poll indicating that individuals are generally satisfied with their own life and have fairly good expectations for their own futures, but possess great doubts about the ability of government to solve public problems. The remarkable aspect of these views is the separation in people's minds between personal well-being and the quality of their government.

That separation is, of course, unrealistic. Unless government is able to respond adequately to a whole range of problems—economic (inflation and recession), environment, poverty, deteriorating cities, international tensions (today the Middle East, tomorrow elsewhere)—their high expectations about their own futures will not be realized. I'm not sure how psychologists would explain this conflict between a sense of personal efficacy and collective effectiveness, but I am certain it does not bode well for the future of the country.

What to do about it? People can hardly be ordered to have confidence in government, nor can confidence be created by better public relations programs, or by denouncing the media. These methods were tried recently and found wanting—fortunately, I think.

Further, you may quite properly ask why I bring this issue to an audience of career executives. Of course, as citizens, you are concerned, but as professionals who work for the government you may claim that the problem is not yours. It is the politicians, not the career people, who have been violating the public trust. That's a fair point and I was pleased that the panel of the National Academy of Public Administration, when asked by the Ervin Committee to analyze the impact of Watergate on responsible government, was able to say:

> * * * it will be to the everlasting credit of that career service that nearly all managed to stay out of those activities associated with Watergate. To do that many

had to openly resist pressures to become involved.[1]

Whose Fault? Career or Political Appointees?

The public, however, does not make a sharp distinction between career and political appointees, nor is it clear that they should. The governmental system is composed of interrelated parts and the weakest link determines the strength and vitality of the entire system. More importantly, a disease in one part will infect the whole.

I address my comments today to the interrelations between political and career professionals. It is a relationship often characterized by considerable tension as are many of the relationships in American government. In commenting on this characteristic of our government's system, the Academy report says,

> * * * There are built-in tensions in the American system of government—and probably in all systems of government. There is tension between the Congress and the Presidency, between the parties, between the houses of Congress, between the substantive and the appropriation committees of the Congress, and between the President and his Cabinet. Some of these were expected by the framers, and the divisions of powers in the Constitution were deliberately planned to accommodate them.
>
> Within the Executive Branch there is another tension, hardly anticipated by the framers, but today operationally as important as any of the others: that between the career and the political public servants. This kind of tension is often quiescent, particularly in ongoing and relatively routine programs; however, it may acquire high voltage in new undertakings and in old ones which suddenly become politically volatile. There are fundamental differences in attitude, in aspiration, and therefore in behavior between political and career officials.[2]

Many of these latent tensions came to the fore during the Watergate period. The question becomes: Was the general nonparticipation of career service people in the politically inspired activities of the politically appointed officials a sufficient response? The merit system, for example, was violated over and over again in appointments to both political and career positions. Although such appointments were made by politically appointed people, career people had to acquiesce to them. The Malek document, now familiar to us all, explained how to do it. Those responsible for the maintenance of the integrity of the system—Civil Service Commission, personnel officers, and high-level executives—must assume their share of the blame for its violation.

Equally, those of us who have been involved in the training of people for the public service must ask ourselves where we failed. Have we become so concerned with providing technical competence that we've forgotten the inevitable ethical component of every human act? Has the explosion of courses in quantitative analysis and computer applications replaced necessary attention to constitutionalism, political theory, and philosophy? I am afraid it has, and we must correct that imbalance.

The evidence further indicates that many decisions serving a political purpose, rather than the public interest, were made. Again, it was politically responsible people who made them, but career appointees were inevitably aware of them and a few courageous ones spoke out, but not enough. Perhaps the responsibility for this failure must be shared by students of public administration who long preached the rightness and

[1] Frederick C. Mosher, et al., *Watergate: Implications for Responsible Government,* Basic Books, New York: 1974, p. 65.

[2] *Ibid.*

necessity of a sharp separation between policymaking and administration. This view was drilled into a generation of students of public administration by their professors. Government experience has since convinced these professors and their contemporary counterparts that in practice such a line does not and cannot exist.

Policy and Administration: Separable?

Policy and administration are intricately and inevitably entwined; the quality of each influences and to some degree determines the other. Unfortunately, no new theory has been developed to replace the earlier one and therefore the relative roles of career and political executives are unclear. The older doctrine is still used, quite improperly in my judgment, by both political and career people, to justify behavior that violates the public interest.

One possible change in the current system suggested by this nonseparability of policy and administration is the elimination of political appointment of assistant secretaries, or whatever title those positions in different agencies may carry. The justification for political appointment is undermined by both the practical impossibility of sharply separating policy and administration and by the actual performance of men who have held these offices. Average tenure in recent years has been less than 2 years—not nearly enough time to get on top of the job. Further, the low visibility in modern government of these positions makes them increasingly less attractive. Too often the result has been the appointment of young people of little experience and even less maturity. Serving but a few months, the usefulness of the appointment accrues principally to the appointee. For him it is a nice addition to his vita, aiding his private sector career.

Further, there is empirical evidence that those who have served best in these positions are men drawn from the career service. A Brookings study [3] done in the early sixties found, on the basis of ratings by superiors and colleagues of like rank, the career people who were appointed to these positions scored highest. Sixty-seven percent were rated good or better and only 8 percent were below average or poor. I should add, perhaps, that those of us from the education community look a bit askance at the finding that, by education level, Ph.D.'s had the next to the lowest rating—40 percent were rated below average or poor; only those with no college were lower; 46 percent were so rated.

I am aware of the arguments supporting the openness of the public service in this country, permitting a good deal of moving in and out of government from the private sector. This openness *is* important to the quality and responsiveness of the public service and to the character of American society. The required use of the merit principle in making appointments higher in the system than is now the case will not eliminate that openness. Appointments from outside the service could be made but only on the basis of the relevance of the candidate's education and experience to the job. Another advantage of making these positions more available to members of the career service is the possibility that it will induce more of those who have spent nearly a lifetime in the public service to remain in that service. Today large numbers of top-level career executives leave the service at the apex of their careers to accept positions in the private sector because of the current salary situation and because of insufficient opportunity

[3] Mann, Dean E., *The Assistant Secretaries*, Brookings Institution, Washington, 1965. Appendix B, Tables on Performance Ratings of Political Executives, 1933–1961, pp. 300–303.

GAO Honor Awards Day Speaker, Alan K. Campbell, Dean, Maxwell Graduate School, Syracuse University. Seated on stage from left, Elmer B. Staats, Comptroller General; Dean K. Crowther, Deputy Director, Manpower and Welfare Division and Chairman, GAO Committee on Awards; Robert F. Keller, Deputy Comptroller General; and assisting in the presentation of awards, Bonnie Nace, Office of Staff Development, and Quienzelle Jackson, Office of Program Planning.

for appointment to government's highest positions.

The most insistent argument against this change will come from those who believe a new administration must have its own men in these positions if new policies are to be accepted and carried out. Sabotage of new policy is believed to be the threat. I have never seen any convincing evidence that sabotage of any significant magnitude has ever occurred. Perhaps I'm wrong but I also remember Harold Laski arguing that public ownership and other socialist programs would never be accepted or carried by the upper-class conservative bureaucracy of the United Kingdom. In fact, it was that very bureaucracy which carried out the socialist program of the labor government. There is no other way it could have been accomplished.

The Role of Public Service Education

Whatever the merits of moving career positions higher in the hierarchy, much more must be done if public confidence in government is to be restored. Above all, of course, is the crucial significance of how well the work of government is done. No greater harm can come to American society than if people believe that the professionals in agencies like the Food and Drug Administration and other regulatory agencies as well as in such sensitive agencies as the Internal Revenue Service are incompetent, dishonest, or politically motivated. The professionalism and nonpartisanism of the career servant must be able to stand the closest public scrutiny.

To accomplish this goal requires much more than simple efficiency. In fact, the efficiency goal has probably caused undue emphasis to be placed on the similarities between public and business administration. Wallace Sayre may have overstated the case when he said: "Certainly there are many similarities between public and business administration and all of them are trivial," but that is closer to the truth than the argument

that there are no differences between the two. Public administration is *public* and that requires a kind of accountability which has not been imposed on the private sector, although some believe the market is an effective substitute. The "publicness" of public administration requires of the public servant humaneness in behavior, a concern for the dignity of clients, and an understanding of the political environment of the administrative process of which he is a part. All of these characteristics require a sensitivity and a range of knowledge unique to public service. If there is a growing similarity between private and public administration, it is private becoming more like public rather than vice versa.

For these goals of effective public administration to be accomplished requires great efforts in many directions but central to them are education and training. The recent emphasis on executive development in the Federal Government is encouraging, but I am concerned with the character of much of it. Perhaps my concern reflects a vested interest, but I believe that considerably more use should be made of institutions of higher education in such programs than has been the case. Short-term training programs conducted "in-house" or by training units operated by government perform a useful function, albeit, I believe, a narrow one. Insufficient attention has been given to the kind of training and education useful to the broadening of the knowledge and attitudes of public servants.

Time spent on campuses provides rare opportunities for interaction between people already in careers and those who are training to enter such careers. These opportunities for regular exchanges in the classroom and outside it, we have found at the Maxwell School to be invaluable. Something over 100 mid-career executives from all levels of government annually participate in the Maxwell School's several mid-career programs. In that participation they meet with and have close associations with young graduate students who are training for public service careers. The profit to the preentry student is immeasurable but equally important is the challenge the practicing bureaucrat faces in meeting the questioning of the aspiring student. Many longstanding assumptions get tested and not infrequently are found wanting. These exchanges and interactions add significantly to the quality of the experience which is available to those who undertake mid-career education on campus.

The openness of the university environment, the availability of conversations with top scholars from across the whole range of disciplines is an experience that is bound to broaden and enrich outlooks in a positive way which will be reflected in on-the-job performance. On the whole, I think business organizations have done much better than government in using university settings for their in-career training programs.

Beyond the opportunities for interaction between government and university personnel through training and educational programs is a need for closer relationships of all kinds between the public service and those educational institutions with programs explicitly designed to train young men and women for the public service. There is, I know, considerable criticism by practitioners about the types of education and training provided by these institutions.

We in these institutions are interested in a better understanding of that criticism and for the opportunity to make our case for why we provide the kind of education we do. Unfortunately, those opportunities are few and far between, although in recent years they have in-

creased. In part, this increase is a result of the current boom in the number of students and institutions involved in providing professional training and education for the public service.

The National Association of Schools of Public Affairs and Administration has jumped in membership from some 60 institutions only a few years ago to over 150 today. Every year sees at least a half a dozen new programs established. Nor do these programs lack for students. Many young people in this nation have opted for a life of serving the public through government. We all, I think, should be encouraged by this show of commitment and it suggests to me that those government agencies who employ these people should take a direct and continuous interest in the character of training and education which they receive.

During the coming year of my presidency of NASPAA, I plan to devote as much time as possible to improving those relationships. It is my hope to be able to work closely with all government departments, but particularly with such central agencies as the Civil Service Commission and the Office of Management and Budget. Already the General Accounting Office, under the leadership of the Comptroller General, Elmer Staats, has given great support to NASPAA, and it is relationships like the one with GAO that hopefully can be developed with other agencies of government.

All of these efforts, however, will not stop public criticism of the bureaucracy. Too many groups' interests are served by engaging in such criticism. Elected and politically appointed members of the executive branch, legislators, politicians, the regulated portions of the private sector and the media, all have interests which are served by placing the blame on bureaucrats for all the ills of mankind. For some of these ills this blame may be properly placed but not for many of them. This criticism is a price that must be paid by those pursuing a public service career, but the quality of today's public service and the growing number of young people committed to it demonstrate that the rewards outweigh this price.

The temptation to criticize the bureaucracy is illustrated by the recent behavior of President Ford. He quite properly issued several statements, first as Vice President and then as President, congratulating the career service on the quality of their performance during the Watergate period. Once on the campaign trail, however, the temptation to criticize became too great. In a political speech in Utah, he succumbed with a typical ringing denunciation of the Federal bureaucracy. He said: "We must cut the power, we must trim the size of the bureaucracy in Washington." In the same speech he argued that "the results and the consequences have been a huge cumbersome totally unresponsive central government that increasingly threatens to assert control over nearly every aspect of our personal lives."

Such criticisms from many sources will continue to be made. Quality performance is the right and, in the long run, the only effective response. That quality will be improved, I believe, by a coming together of the bureaucracy and those educational institutions devoted to training young men and women for public service careers.

Peter F. Drucker
Distinguished University Lecturer, New York University; Clarke Professor of Social Science, Claremont Graduate School

Dr. Drucker is a management consultant who specializes in business and economic policy and in top management organization. He has been a consultant to several of our country's largest companies, as well as to leading companies abroad; to agencies of the U.S. Government and to several governments in the Free World such as those of Canada and Japan; and to public-service institutions.

Dr. Drucker was educated in Vienna, Austria, his birthplace, and in England. He holds a doctorate in public and international law from Frankfurt University in Germany and has received seven honorary doctorate degrees from American, English, Japanese, and Swiss universities. He now resides in Claremont, California, where he is the Clarke Professor of Social Science. He has lectured at the Graduate School of New York University since 1950 and continues as a distinguished lecturer at that institution.

His recent books include The Effective Executive (*1967*); The Age of Discontinuity (*1969*); Technology, Management and Society (*1970*); Men, Ideas and Politics (*1971*); *and* Management: Tasks, Responsibilities, Practices (*1974*).

Dr. Drucker is a Fellow of the American Association for the Advancement of Science; of the International Academy of Management; and of the American Academy of Management. He holds the Taylor Key of the Society for the Advancement of Management (1967), the Wallace Clark International Management Medal (1963), and the CIOS Gold Medal of the International Management Congress (1972). He was awarded New York University's highest honor, the Presidential Citation, in 1969.

Our speaker today is Peter Drucker who is one of the most sought-after counselors on management in the world today. Now, that's a big statement, but I think it's true. I'm told his calendar is booked at least one year ahead. In fact, I've been attempting to persuade him to come to Washington for a return engagement since 1971, and the good fortune which makes today possible was actually scheduled last December.

Tom Morris, who is an old friend of our speaker, tells me that the last major talk that Mr. Drucker made to a Federal audience was in the Defense Department in 1967 at the time his book, *The Effective Executive,* had just been published. But the seeds of that book go back at least to September 22, 1960, 14 years ago almost to the day, a day I personally well remember when we persuaded Peter Drucker to speak to an audience much like this one, under the sponsorship of the Bureau of the Budget.

Those of us who heard Peter Drucker speak that day were much impressed with the five basic rules of effectiveness which he cited and which I think are worth repeating:

First, an effective manager focuses on contribution and results.

Second, an effective manager is one who plans and who, above all, knows what planning is.

Third, an effective manager concentrates the work of his organization on a very small number of major tasks.

Fourth, an effective manager constantly asks the question, "Which of our products, activities, methods, and processes have outlived their usefulness?"

Fifth, an effective manager builds on strength.

Today, all of us know the validity of these five criteria for managerial effectiveness has been demonstrated fully, and I believe that they are the principles which we in the General Accounting Office try to apply both in managing our own affairs and in judging the performance of others.

When Mr. Drucker made this talk in 1960, he had then published seven major books. Since then he has added six to this list—the last of which, entitled *Management: Tasks, Responsibilities, Practices,* was published this year and made the bestseller list for several months.

—Comptroller General

Effectiveness of the Public Service

Dr. Peter F. Drucker

About 6 weeks ago I was just beginning to settle down with that light reading entitled "The Budget Reform Act," when I got a telephone call from an old friend who is in this audience. He said, "Pete, when you come to Washington in mid-September, are you going to tell us what to do?" I kind of recoiled, as if from a rattlesnake, because, while I do suffer from delusions of grandeur, I usually try not to bring them to Washington. Competition in that department is too fierce around here. I said hastily, "No, no, that's the last thing I'm going to talk about." Then I kept on reading the act and studying it and I began to understand why this old friend of mine asked the question. But I'm not going to talk about *what* you should be doing. I'm going to talk about *how*.

Changed Role of GAO

I think a few words to set it in perspective are in order because, as some of you know, some of the provisions of this act are things I have been hoping would be enacted for many years, as a first step towards making the Congress effective again. I think it is a big first step, but it's only a first step.

However, as a result of it, your role and mission have changed significantly. A few years ago, if anybody talked of the General Accounting Office, it was as the watchdog of Congress. You are going to keep that role and not materially change it. But the act adds to it a new one which is to be the educator of Congress—and that's a very different role. I know you have been sliding into this role fairly fast these last 10 years so it's not a totally unfamiliar one.

Most of you know by now the great difference between your traditional role in which you were being charged to exercise the best of hindsight—and the new role in which you are expected to exercise the best of foresight. As you all know, hindsight enables you to see very clearly and also to see what would have been the one right and proper course of action. But the best foresight can really do is to say with high probability, "Here are the viable alternatives." This is a very different role. Also, the failure rate of foresight is inevitably a substantial one.

What I mean, for instance, is if this act had been in effect 6 or 10 years ago, you would have been asked to advise the Congress on the impending Medicaid bill. I was one of the several hundred people who had opinions on it and I came closer than some to what actually happened. My cost estimate for Medicaid was ridiculously high—not because I though it would cost more than had been estimated, but because I have an old accountant's habit of doubling the cost anybody else estimates. Yet I was ludicrously under. And I don't think anybody today, if we had to do it again, would be any closer, simply because the

impact this particular act had could not be foreseen. We still don't know what happened. The explanation that the sudden inrush of a lot of new patients and new money into an already overstrained system created an inflationary surge—when you test it—just isn't right. It isn't true, we don't know what happened, although something did, obviously.

Thus one has to accept the fact that foresight is likely to be less reliable than hindsight. But one has to exercise it, therefore, all the more. This, let me say, means also that you, and this institution —and as you perhaps know, you are the largest professional institution in the world—will now have to think in terms of three parallel but very different major responsibilities.

First, there is the traditional financial auditing one, which I know does not occupy more than a fraction of your time but that is not a proper measure of its importance. That only means you know how to do it.

Secondly, there is what you call review —management, economy, efficiency, effectiveness—which, in a way, makes GAO the only place in the American system where the Federal government and the people are brought together. You are, in a way, the ombudsman in that role. When looking at the catalog of the things you do, one sometimes wonders why your highly trained and scarce people chase this particular wild goose—and I'm sure you wonder, too—and in some cases the answers may not be edifying. The true reason is that when the Postmaster General in Italy—let's get away from this country—says, "I don't understand what the uproar is about over our postal system; we only lose 5 percent of all letters," it is no consolation to the girl who wrote that boy a letter in which she told him how much she loves him, and it didn't arrive. It is no consolation to be a minor statistic if it wrecks your life. GAO is the one agency which constantly reacts to the public and its individual frustrations, feelings of injustice, and inequity. In that sense, although you look upon yourselves as accountants, engineers, programmers, and what have you, you are also the one agency that humanizes the system to a large extent. Therefore, even the wild goose chases are probably, in the last analysis, productive.

Now comes the *third* function which consists basically of foresight and evaluation. The three have to be done in parallel. The same kind of people do them, but they are different activities. How you are going to organize yourselves for them is your problem. I don't know enough to have an opinion. But I would like to discuss how, if I were one of you, I would try, with the tremendous challenge of these three equally vital tasks, to make sure that I contribute—that I am effective. In a way, Mr. Staats has stolen most of my speech. I'm going to say things which I hope all of you know, and the purpose of my being here is not to tell you anything you don't know. The purpose of my being here is not only to remind you but to ask you at the end—you know all these things, are you doing them? If not, why not?

Identifying Objectives

Here, in the public service, what are some of the fundamentals of being effective? You are the largest professional organization. And yet you are a small organization. Look across town at HEW; you'd disappear in one of their filing cabinets. You would not even be noticed. So let me say, if I were a division chief or a section chief or an individual professional, I would say "I have a responsibility—*not* only to GAO, but to myself —to think through my own objectives: what are the few things I can do whose

impact if done as well as I know how are likely to make a difference?" You are not your own boss, nobody is; you are not in control of the universe, and if something breaks loose in a congressional committee tomorrow, you are going to run to its assistance whatever your plans are. We all do that. But what are the few things that are true objectives? Then ask the question which unfortunately governments don't ask, and public service institutions don't ask: "How do we measure them?"

Measuring Performance

My consulting practice is about 50-50: business and nonbusiness. The one difference between the two is that business knows only too well how to measure, and only too narrowly how to measure, but at least they have a measurement. It's a rubber yardstick, particularly in inflationary times. It's a short-term yardstick and it is by no means adequate, as we found out in the environmental crisis, in the energy crisis, and so on. But at least it's a yardstick, and everybody in business, whether he knows it or not, carries that sliderule in his pocket.

In a public service institution there is no such self-evident yardstick. It is almost impossible to think through how we should measure our performance when there are maybe half a dozen measurements, all of which read differently, and so one has to make a decision and it's not an easy one. You are asked about the need for a 200-bed community hospital. That should be easy. You may say, "Health care—that should be simple." It isn't. It's very complicated. Yet the hospital is a comparatively simple institution compared, let us say, to the Department of Transportation or any of the cabinet departments. Thus, one has to say, "Here are our objectives, now how should we measure our performance?" I suspect, reading your annual report, that one measurement you have which corresponds roughly to the bottom line in business is: "How much by way of congressional action did we bring about?" Let me say, one counts apples, carrots, and penguins and adds them together because that congressional action may be a major bill and it may be just nothing at all. But still one sees something happen which is very satisfying. Believe me, that is not enough, and it may be very misleading, particularly in the program area, because very often the greatest contribution you can make is to produce congressional *inaction*. Prevention is often more important than anything else and not, as we have done so much these last 10 years, rushing into things that look awfully good, that sound awfully great, and that just make very little sense because either we tackle the wrong problem or we tackle a case of gangrene with aspirin or a headache by amputating the head.

If I were you I would spend a little time in thinking through what is really a measurement of your effectiveness, of your contribution. This I say *very* reluctantly because, like so many of you, I am an old accountant, and accountants hate multiple yardsticks. It is one of our great strengths that we ultimately reduce complexity to simplicity, and every good accountant tries very hard to do that. That's a strength and don't give it up. Yet it is sometimes not the right thing to do. Sometimes one says, "Here are four or five measurements." What I am saying is you go to your doctor for a physical and he puts you on the scales and he takes your height and your age and it's only when he has the three measurements that he knows whether you are the right weight or overweight. To say, "Jim weighs 196 pounds" doesn't tell you whether he's overweight because if he's six foot six and 35 years old he isn't. But on the other hand, if he's five foot one, maybe he'd better lose 50 pounds. So

even there you have three measurements; and then the doctor takes a blood pressure reading, temperature, and a blood count. He takes six or eight or maybe ten measurements, and it is the relationship between them alone that is meaningful. I think we will have to learn that this is the nature of complex policy phenomena.

What are the right measurements for your effectiveness in this area? I hope you will take responsibility for thinking this through because nobody else can—only the man who understands the task can do that. So I hope you will think through measurements, particularly those of you who simultaneously are responsible for more than one main line of endeavor—for auditing, for review, for policy, and for what the new Budget Reform Act challenges you to do. "What are the objectives? What am I trying to accomplish and how do I measure them?" Don't be upset when you find that you come up with multiple measurements and with conflicting measurements, though in the end you do have to make a decision.

Need To Concentrate Efforts

The next step is to try to concentrate your efforts. Now you will tell me that this is very difficult because here is that congressional subcommittee and it's after something. It's just throwing an assignment to us and it needs the answer yesterday, so we are not in control of our time. You are absolutely right but it doesn't help you any. Where in that almost endless list of things we *might* be doing are the things we *should* be doing? And by what criteria? What really decides where we are putting our not very large force?

Let me say that you should not become a large force because we know enough about professional bodies to know that they do become unmanageable when they become very large. It wouldn't help you any if, instead of fewer than 4,000 people, you had 40,000. In fact, you wouldn't achieve anything. You'd be so busy administering that you wouldn't *do* anything any more. I don't know where the limit lies, nobody knows. But we know that the 2,000-bed hospital doesn't work. Dedicated people worked very hard to make it work and it didn't. An 800-bed hospital? Yes, that's a very nice size to manage. It is not because the 2000-bed hospital has too many beds and too many patients, but it has something like 7,000 professionals, and they just mill around. In the 800-bed hospital you have something like 2,400 professionals, counting all the doctors and paramedics and so on. That's fine—a very nice size to manage. The under-50 bed hospital is economically not viable. The cost per patient tends to be too high if you really try to do a good job. So, some place between 100 and 800, is manageable; but if you go above 1,000 you rapidly run into the fact that more and more of your best people don't do patient care, but do everything else.

Thus we have come to realize that it is a strength not to be fat in your kind of work. It is a strength not to be overstaffed in your kind of work. It is a strength to know each other in your kind of work. And it is a strength to work with individuals rather than with statistics in a professional organization. So, concentrate.

Balancing Short-Term and Long-Term Results

What are the areas in which effort is most productive? One needs to balance short-term work with long-range work, but don't fall for the long-range plan that does not have short-run by-products. People are not capable of sticking to something for 5 years without seeing re-

sults. One becomes discouraged and dispirited and discredited. So one needs to reaffirm one's belief, one needs to see action, one needs to see a result—but one needs to balance that with effort which enables you to think and to understand the issue, and that's slow.

I know that you are up to your ears in the energy problem. I don't think that anybody who has tackled this area hasn't learned very soon that it takes a good long time in order to understand its complexity and to know what are the really important things. Most of the things that make the headlines may not be the real issues but may be red herrings. And others which nobody has paid any attention to may be the key to the solution. That takes time. So try to balance short-term with long-term results.

In the short term you need to show to yourselves, to your colleagues, to your constituents your competence and your willingness to perform. In the long term your work should establish a standard, as a good deal of your management review work does; and your work should aim to create real understanding. The challenge is to establish a balance that makes your work and your function most effective. That's not going to be easy.

Assuring Understanding

Sit down with your own people and make sure they understand. Above all put the burden of responsibility for thinking these things through on your own people, all the way up and down—every professional. This is not something in a professional agency one does from the top down. That's really the definition of a professional—a man who is responsible for his impact. One demands —even of the youngest, newest recruit—that he think about objectives and contribution and responsibility and priorities and concentration. You as his boss have both the responsibility and the right to say, "Oh, no, that's the wrong thing." But let me say it doesn't necessarily follow that you are right and your associate is wrong; but it also isn't true that he is right and you are wrong. This is something one works out. Then make sure that your associates understand what you are trying to do and above all that the people who are not in line of authority either over you or under you understand it.

The greatest problems in a professional agency are usually sideways relations, because here is that fellow on the organization chart that looks as if he has nothing to do with you and you know perfectly well this isn't the way it works. You need him and he needs you. Take responsibility for your relationship, and make sure that the people up your line understand it. The greatest danger in organization—and a very common one—is belief in telepathy—the belief that it is so obvious to me what I am doing, it must be obvious to everybody else. That old insight of the early semanticists—namely, that what is obvious to me, nobody else sees at all—is very important. Make sure you think through what your objectives are and spend a little time in making sure that your associates—particularly those who do not work every day with you—understand, so that they say, "There's Pete, and he's doing some very peculiar things, but I think I know what he's trying to do, and it makes sense." One avoids a lot of wasted time and wasted efforts by not trusting to telepathy.

This is the first thing: concentrate, if you can, and accept the fact that in your kind of work one has to have elbow room because the unexpected will happen. Suddenly there is that telephone call from the Hill and you are being pulled off something. One shouldn't schedule your kind of work 100 percent. One has

to have a little freedom to do the unexpected. I'm not saying keep people idle, but have work that can be interrupted without being destroyed, because you will be required to do this. Learn to get control.

But above all, learn to create understanding. The responsible and effective administrator asks: "Who are my constituents? Which groups have to understand what I am trying to do, and which groups do I have to understand or else they can make life impossible for me, or at least very difficult?" One of your constituencies is, of course, the Congress. But the executive agencies are constituencies too. And maybe you have more, though these two are predominant. Try to understand what these constituencies expect; how they see your work; what they see differently from the way you do; what they *misunderstand;* and what they therefore perhaps need to be told. Don't make the greatest mistake of the public agency, which is to try to get by in the short run by brushing things under the rug.

Look at the typical city government. Today in this country in a typical city government you have a city manager and an elected mayor and council, and then you have department heads. Every department head is terribly busy trying to keep things secret, trying *not* to let the city manager find out what he is doing, and, above all, not to let the city council find out. He protects his police force, his firemen, and what-have-you, against those so-and-so's—the politicians on the council. In the short run, yes, maybe that makes sense. But it's one of the reasons why sooner or later he is in trouble because then he does something and it hits the newspaper or the councilman's aunt telephones him, and the councilman is not in a position to say—nor willing to say, by the way—"Leave him alone. I know what he is doing." Then you have an ex-police chief.

Make sure that that congressional subcommittee, on the one hand, and that division head over in executive agency on the other hand, understand what you are trying to do. Spend a little time educating them *before* you have a problem. You are probably better at this than most, and I am telling you something you already know, and largely do, but one cannot say it too often. The great problem in a system in which an elected political body works together with a professional body is that the values of those two don't mesh. Their views of the world are different, and therefore the opportunity for misunderstanding is unlimited and it is the job of the professional to make the politician understand what the professional is trying to do. You will find that for a good many good politicians this is very, very difficult.

Incidentally you will find that, after 6 months in Congress, the man who comes out of professional background has forgotten it. I have a few friends in the Congress who have come out of big corporations or big institutions, and 6 months afterward they no longer know how an organization works. It is important that the professional take that initiative to enable the politician to understand his work—particularly now that the Budget Reform Act makes you a part of the political process and yet demands of you professional performance.

So take responsibility for a little understanding on the part of the constituencies. The executive departments also, of course, need to know this. But that's an old chore for you. You know how to do it. You've done it amazingly well, and you work at it or you don't work at all. But now I think you have to think a good deal about each subcommittee and what its staff, its chairman, and its members have to understand about what you are trying to do, and you have to level with them. If you brush things under the rug, you're going to be in trouble very

soon. You have a long educational job to do. But, also, you may be very much surprised if one of these constituents says, "That's the way you see it; it isn't the way I see it at all. You are missing something." Or, "You have something in here and I don't understand why." Maybe the constituencies see the world differently, and should, and yet they have to respect you, to support you, and to understand you, and that is probably the *real* implication of this new act. You are now in the situation in which you are a partner—or at least a support—in the political process. That means you have to be understood by people who see, and should see, politically—and who act, and should act, politically.

Abandoning Work

The next requirement for the effective manager is: "Organize your own efforts to abandon things you are doing." I was a little unhappy about the Budget Reform Act because it puts a big, new job on you without relieving you of any of the old ones. That's not the way to run a staff agency. I like a staff agency to be run on the basis that, when one takes on a new job, one gives up an old one, for one simple reason: the kind of work you are doing is not easy or simple work. I'm not talking of the technical skills; I'm talking of the qualifications of character, and of the ability to work with people who are potentially adversaries but must be partners. That's perhaps a most difficult job, and you do it very well. And yet it has to be an arm's length relationship or you aren't doing your job. While you have been very successful, I don't think it's easy to find people with this skill, especially outside your organization.

Any new job is difficult; and in the

Dr. Peter F. Drucker, Clarke Professor of Social Science at the Claremont Graduate School, lecturer at GAO on September 19, 1974, with Comptroller General Elmer B. Staats and, on left, Thomas D. Morris, Assistant Comptroller General.

past you haven't done the job required by the Budget Reform Act. Many of you came up in auditing, and now you are heading a section and you get into policy review and evaluation—work you haven't done before. Therefore when the fellow whom you put on the job gets into difficulties, you cannot really help him; you don't know how since you haven't been there. Then there is a tremendous premium on having a good, strong man in there with a proven performance record.

Let me warn you against the worst tendency of the Federal Government, which is to hire outsiders for new jobs. It's one of the main reasons for program failure. One cannot go by the fact that he has done exceedingly well elsewhere. The genius at General Electric could be a bum on your payroll, and vice versa, by the way.

New jobs should be assigned to tested people. Here is Jim, and Jim I know, and I know that Jim will go to work like a house on fire. After 6 months he will lose interest and then he needs to be propped up and pushed and recharged again. Then he goes another 6 months. The first 6 months he will work day and night, and then suddenly just when he begins to understand the problem, he loses interest. But I know that—I've seen it.

Here is Joe, and I know Joe, too. Every time Joe takes on a new assignment he spends the first 3 months like a puppy in a basket chasing his tail. And during those 3 months I have to be after him. But then he gets organized.

And here is Jane. Jane is wonderful at thinking it through, but when it comes to organizing with people, she doesn't know what to do. And I know it.

Precisely because you know the limitations of your own people, they are the ones to put on a new job. Don't hire from the outside for new jobs if you can possibly avoid it—occasionally one can't. One hires for jobs one already knows and understands because then one can train a man and can help him and can guide him. For the new job he has to do it himself because you don't know any more about the job than he or she does. I like to see new jobs accompanied by sloughing off old ones because it's the only way I know to get good people free and available.

Well, no one is in control of the universe. You got this huge, new job without being relieved of an old one, and I think we all know that, in all likelihood, some of the old ones will become perhaps more demanding or will grow. I like to see the kind of work you do, done exceedingly well. I'd rather say, "What do I give up when I take something new?" But if that isn't the way it happens, be very, very careful.

Do not mistake fat for muscle. One needs to do one thing as a regular management routine. Every so often, say every 2 or 3 years, one should put every activity, every project on trial for its life. One says, "Knowing now what we do know, if we weren't in it would we go into it?" And if the answer is "no," one doesn't say, "Should we get out?" One says, "How fast can we get out?"

One may reach the end of an activity because it has attained its objective. The schoolmaster, for instance, for about 4,000 years had the objective of putting a few kids into school and keeping a few bright ones in school; even 50 or 100 years ago this seemed a distant objective. When he reached it around 1960, he kept on doing what he had done before, which is extending the years of schooling to the point of absurdity. Having attained an objective, one doesn't redouble one's efforts—one says, "How do we get out?"

Or you may find that the objective is unattainable. It isn't true what the sys-

tems people have always said—that if you can define a problem, you can solve it. There are a lot of problems we can define and still can't come to grips with. One may decide that maybe it's 20 years too soon; maybe it can't be done. Then one doesn't pour more good people into that rat hole. Or, it was just the wrong thing to do. A lot of our poverty programs were the wrong thing to do, and because we did not abandon them, the right ones got starved. The poverty program is a lesson in how *not* to manage because we abandoned the promising ones in order to put resources into the wrong ones, and as a result we achieved very little. And that was a heartbreak because the things we abandoned were just at the point where a little effort would have had real results. At that point we said, "Oh, but here are all these things in trouble. Here's a good man. He's gotten results in Head Start. Let's pull him out and push him into this one." We killed both programs and the good man to boot. One does *not* sacrifice one's successes so as to prop up one's failures. One does not use strength to buttress weakness, because it doesn't. One abandons when one sees it's the wrong thing to do, either because our information was wrong or the basic theory was wrong or because sometimes one doesn't understand why.

So, one looks critically and one keeps control. That's the first thing. The other thing is, look at productivity. I'm always being asked these days, "Is growth good or bad?" Well, the answer is that it depends on what growth you're talking about. Malignancy is a growth, and it's obviously not good. But 11-year-old Susie's growth by 3 inches a year is obviously all right. The test is productivity. If a new activity results in at least no dilution of your effectiveness, if, in other words, the cost-benefit ratio—and your costs are people, not money—doesn't go down, then it's acceptable. If it goes up, it's right. And if it goes down, it's the wrong thing. So, watch your efforts from the point of view of "If we weren't in them, would we go into them, knowing now, 2 years later, what we have learned?" And, secondly, "Do they add to my effectiveness as a professional? Our effectiveness as a division? Do they increase productivity?"

Keep weight control, because, while you may need more people, basically, your work is not work that's done by massive effort. It's done by brains and dedication, and these are *not* traded on the New York Stock Exchange and are not cheaper by being ordered in carload lots. I would say that anybody who joins GAO, unless he is doing simple auditing, is a trainee for the first 5 years, no matter how many grades in the Civil Service you promote him. Yet much of your work you can't supervise. That fellow out in Alaska studying the Alaska pipeline can't be supervised out of Washington or even out of Seattle. He either knows what he is doing or he doesn't. And it is not just theoretical knowledge —it is behavior, instinct, feel, responsibility. Those things one learns, but not fast. So don't grow too fast, because you can't digest it. But then you have to be careful about concentration all the more.

Assignment Control

And, finally "How does the effective executive exercise *assignment control?*" That's a perennnial problem with the kind of work you do. You can't supervise people, and yet, you can't afford anything but excellence in the work because the reputation of an agency like yours can be destroyed incredibly fast. You have now worked 50-odd years building your reputation and you have earned it. It depends not on brilliance and not on brains, but on responsibility and seriousness, *on example.* One of the reasons why

the international large CPA firm doesn't work well is that the fellow who does the work out in Dayton, or in Frankfurt, Germany, doesn't have the example. If you have got a thousand professionals in 72 places, the fact that the 20 or 30 senior partners are absolutely tops doesn't help the young professionals. He doesn't see them.

Assignment control means three things. It means, first, think through what we *should* be doing and what we *should* achieve. It means, secondly, the right balance so that the work challenges the people in the agency, but also *yields* the most. It finally means *example* from your group here. Let me say the one danger I hope you will avoid is to become "managers," if by that you mean somebody who is no longer a working professional. The one danger in an agency like yours is that the people who set the tone and establish the standards and embody its excellence no longer get their hands dirty, no longer know what the situation is across the road, working with a group of people who are a little bit afraid of you but who are at the same time dependent on you and have to respect you, above all. So assignment control also demands that the division chief, the section chief, once in a while, twice a year, goes out not to inspect, but to do. To put it bluntly, no professional organization respects people unless they are technically competent. Not one of your men really respects the boss when he doesn't feel that the boss could do his job at least as good as he himself does it.

That's one of the problems in managing research—you can't put a chemist into the research director's job when chemists don't respect the chemist. Nine times out of ten, he's a lousy research director. Good chemists don't make good research directors. They have other things to do. That's one of the problems, and yet they have no choice. So make sure that you do not abdicate the *example.*

Significance of Budget Reform Act

Let me say that the U.S. General Accounting Office is, as you know, one of the youngest of the major accounting offices we have in world governments. The concept I believe dates back to the 18th century and was really embodied for the first time by the Prussian Crown around 1750. You are a little over 50 years old now and perhaps the most effective of the major countries. I have a very warm spot for what our friends north of the border in Canada are doing. I think this is a magnificent outfit there. But a very small one. But you are certainly the most effective.

And for that reason it is proper that the next major step in modern government has been made in this country and entrusted in part to you in the Budget Reform Bill. The idea in this bill is that one tries to think through, first, whether a new program is needed; secondly, what it has to do to achieve defined objectives and, third, to evaluate the actual course of events against expectations. This is the next big step in government, and an essential one if government is to be saved. Without it, government is endangered seriously. And it's proper and understandable that we have made it. The reason why it cannot be made in many countries is that they don't know where to put it. Whom would you entrust with it? I know some major governments and I wouldn't know where to put it. They don't have the competence; they don't have the respect. Oh, they are auditors, good ones, even, but that's all they are. But they are not what you have proven yourselves to be.

So the Budget Reform Act is proper, but it's very much more than what Congress thought it was doing. I read not

only the act but the bill and preamble and the arguments, and I think the Congress did *not* fully realize how big a step it is. They thought of it as mechanics, but very clearly this it is not. This is basic anatomy, and physiology. We must make sure it doesn't degenerate into pathology.

Let me come back to what I said at the beginning. What your job is, you will have to work out, and in 10 years I think we will know. It will take that long. But it increases the demands on your ability to manage yourself, to manage your professional associates, to manage your organization. It increases what is at stake, and it increases the importance and seriousness of what you are doing. Therefore I would say that this is the time, if I were one of you, in which I would very seriously ask myself: "I know we have good people and I know this is the right thing to do. How can I live up to the greatest opportunity in government in many, many years?"

DISCUSSION

I wonder if you would comment on the relationship between planning and the organizational structure of a group like GAO.

Mr. Drucker: Do you mind if I am very flippant? Because, let me say, you all know that there is no organization structure that makes sense. One has to have one, however. So observe two rules: don't reorganize every Wednesday, but don't believe you have the ideal organization structure, and don't get too upset because this or that function is not where it should be. Organization structure is simply a way of saying to good people, "Here is my job. All right, we have friction and nobody can really say where transportation begins and energy ends. It's hopeless. So it's my job to work it out and sit down with another fellow and say, 'How do we play it?' " "Energy" is simply another way of saying "life." And yet it's got to be done in pieces.

And here is procurement that cuts across everything, and here is personnel. Yet it's got to be done in pieces. Above all, planning is your mechanism for articulating this. Use it as such. It's a way in which you can make diversity and specialization effective in unity, and direct your effort. Planning is *your* tool for creating common vision so that you can go about your own individual, specialized, separate ways. Look at planning that way, not mechanistically.

You spoke about performance level in public institutions. In a recent article in the McKinsey Quarterly *you also talked on the same subject, "Performance in Public Service Institutions." There you said the results of a budget-based institution are measured by the ability to increase one's budget. . . . How do we control this type of situation? Can we put a lid on it? Or is there a way of measuring performance by increased productivity without increasing the budget?*

Mr. Drucker: The budget as a misincentive—the only way you can control it today is by asking the question, "What do you abandon? What is no longer worth doing?" When I look around this town, I see many places I want to ask that question. One of the problems with government is that the moment you have a program, you have vested interests in it; it becomes a sacred cow. It's very hard for government to slough off anything. But at least flag it. Make sure that the question is asked, "What purpose does this serve, if it ever did serve any?" Raise the question, and don't stop. Keep on. You have to act as the weight control of a government—not just our government —which has a tremendous tendency to mistake fat for muscle, and budget for performance. You are in the one position where you can be unpleasant about it.

That's about all you can do. But if you are unpleasant long enough—sufficiently unpleasant—well, something might even happen.

Could you provide us with some more specific examples of where you believe government could ultimately be more effective?

Mr. Drucker: No. In the first place, I don't have opinions. Either I know the facts or I don't. But let me say you also know that there are activities which may be exceedingly effective, but do not do what they were supposed to be doing.

Let's take our farm program. Our farm program was started to save and maintain the family farm. But what it really did was to increase the productivity of farming, tremendously. But it hasn't maintained, saved, and supported the family farm—it did the very opposite. Now I'm not saying that that's wrong. But I'm saying that under that new act it's going to be *your* job to say, "Is this really the intent of the Congress?" The intent of the Congress all along, and the announced intent of all our farm legislation, was to save the family farmer, who under the benevolent influence of our farm legislation has been melting like a snowman in May. Farm productivity, yes. Is that what you want? Or is this program achieving something totally unintended that you don't want?

The same thing could have been said about the Interstate Commerce Commission a few years ago. The ICC is based on the assumption that railroads are a monopoly and the only available form of transportation. This became somewhat debatable around 1930 and totally absurd around 1950.

These are not examples of things that are obsolete because, believe me, I think the farm legislation was the right legislation in the long run, and the ICC has a function. These are not examples of things we should go out of. But these are examples where I think the new act expects *you* to raise a big question and to keep on raising it.

GAO Report On Vocational Education

Mr. President, I would like to call to the attention of my colleagues a new report issued by the General Accounting Office entitled "What is the Role of Federal Assistance for Vocational Education?" Since the Vocational Education Act of 1963 expires this fiscal year, the Subcommittee on Education, of which I am chairman, plans to conduct oversight hearings on the act's implementation, as well as receiving suggestions for its amendment. I am certain that the GAO report and its suggestions for legislative improvement will be most helpful in serving as a basis for our hearings.

Senator Claiborne Pell
Congressional Record
February 5, 1975

James L. Hayes
President and Chief Executive Officer, American Management Associations

James L. Hayes is a leader in the field of management development. As President and Chief Executive Officer of the American Management Associations and Chairman of the Board of the International Management Association, he directs an organization which is the foremost advocate and developer of professional managers in the world.

Mr. Hayes began his career over 35 years ago as an instructor of social science at St. Bonaventure University, New York, where he later became head of the Department of Business Administration. He became Dean of the School of Business Administration at Duquesne University in 1959, where he served until his appointment in 1970 as Executive Vice President for Development with the American Management Associations.

Prior to his election as President and Chief Executive Officer, he traveled throughout the world in fulfilling his responsibilities for overall development of new programs, projects, and markets for AMA. He served as executive liaison between the Association and its affiliate in Arizona, the Thunderbird Graduate School of International Management, and as overseer of the personnel and activities of AMA's Center for Planning and Development, Young Adult Program, non-business management programs, and AMA's 13 Divisional Planning Councils. He was also responsible for AMA's activities in public and urban affairs as well as for quality control of all AMA products and services.

A graduate of St. Bernard's College and St. Bonaventure University, Mr. Hayes was awarded an honorary Doctor of Business Administration degree from Thiel College in 1970. He is a faculty member at the Stonier Graduate School of Banking at Rutgers University and a member of numerous professional and civic organizations including the American Economic Association, the American Academy of Management, and The Advisory Council to Junior Achievement of New York.

Evaluation is a subject which has become extremely relevant to GAO. In recent years we've witnessed a growing demand from the Congress for evaluations of the performance and results of Federal department and agency programs. And this trend is continuing to accelerate.

Evalaution has also been referred to by both of our previous lecture series guests. Dr. Eli Ginzberg suggested that GAO should broaden its framework for evaluation in the health program area. Mayor Walter Washington discussed some of the difficulties that may be encountered by GAO when conducting program evaluations dealing with urban affairs.

The subject of evaluation is again going to be considered by today's speaker, but from a different perspective. He will be discussing evaluation and its role as part of the personnel management process within an organization—evaluation as it relates to people rather than to programs.

There are few people more qualified to address such a topic than James L. Hayes, who is President and Chief Executive Officer of the American Management Associations. Mr. Hayes has been in his present position since 1971. However, his relationship with AMA goes back over 15 years. He has had responsibility for the development of new programs and markets for the Associations, quality control of AMA products and services, and the activities of AMA in public and urban affairs, among others.

In addition, he has served—and I might add—continues to serve as an instructor and lecturer in the well-known AMA Management Course and as a featured speaker with the Presidents Association, which is an affiliate of the AMA. The "Hayes series" of film presentations on topics such as management development and standards of performance are widely known in the management community.

Prior to joining the AMA, Mr. Hayes had a distinguished career in the academic world. He served in various positions at St. Bonaventure University and then in 1959 joined Duquesne University as Dean of the School of Business Administration. He served in that post for 11 years. His academic training, plus his varied experiences with the AMA organization, make Mr. Hayes one of the foremost authorities in the field of management and management development.

—Comptroller General

Evaluating Managers and the Job

James L. Hayes

I have an old story that someone reminded me I should tell at the beginning so that those who may run into me some place along the line will have a sharp recollection.

There are people who like to get into speaking, and my advice to them is that if you are interested in public speaking, there is one sure formula: Whenever you are invited—speak. I don't care where it is or what the occasion is—speak, because there's bound to be a right place at the right time that you give the right talk. As you know, this is called statistics. Usually someone will come up to me and say, "Jim, you know you made some strong points there on such-and-such topic. Would you come over to our Rotary Club and talk to them?" I say, "Well, I've got another talk for Rotarians." And they say, "Now look, these boys should hear exactly the same thing —don't change a word of it." So I go to the Rotary Club and I give the talk and someone comes up and says, "You know there are a couple of points there that I think would be great for the men and women who manage our company. I am wondering would you come over and talk to our managers?" I say "Well, I've got another talk for managers in one organization." And they say, "No, don't change it. Now these are exactly the same things I'd like to have them hear—give them the same thing." This goes on and on, until someone in GAO is trying to put together a series of lectures. One day the lecture committee meets and the members ask, how about this fellow Hayes? The reply: "Hell, he only has one talk." What I suggest to you is that if my topic today was the Ten Commandments, you don't give me much leeway. I can mix them up a little bit and move them around, but I can't change the fundamentals. To the contrary, if I were invited to talk on sin, of course, that would give me wide latitude because it's an area of very great innovation.

I'll try, therefore, to stay with a kind of idealized concept of evaluation; rather fundamental. I hope it will generate some discussion and I feel I will be successful if after I leave you're still discussing it. As a matter of fact, I feel very strongly that one of the very important parts of any educational development is that you're still talking over the topic after the formal session is over. I even will go beyond that and say that maybe that's the best time of all.

Some Presumptions for Evaluation

As I talk about evaluation, I approach this group with two presumptions:

1. Some of you are managers, and therefore in the position where you must practice it.
2. Many of you are going to go into situations where you must evaluate how evaluation is going on, and therefore, it becomes an important part of

your knowledge as you shape it up even if you don't agree with it.

Getting into this great big world of management, I find that I have to make a whole series of presumptions, and all of the management concepts must come together simultaneously in a decision. What happens is that we know so much today about management either through observation, or better yet, through management science that when you go into any kind of formal training or read a book, you have to break it out into pieces in order to comprehend it. Indeed this is true of any other subject. For instance, people go to management training programs and usually hear someone talk on planning, on organization theory, on motivation, on communications, and so it goes. It is amazing how many people will return home from this and immediately declare National Planning Day—except for some old-timer who'll say "Well, humor the boss, you know, he's scheduled for another course in a few months and he'll forget this."

Somehow we forget that you can't have planning without effecting communications; you can't talk about communication without some concept of control processes. If we get the means and end mixed up, we're in trouble. There is a great tendency today, I feel, to get devices and techniques mixed up with fundamental concepts. As an example of this in my own exeprience, I recall the first time I traveled for the university. Universities are not fundamentally very different from government when you travel. You know, their philosophy on expenses boils down to "Here's a buck, blow it." You keep track of it, but you know you're not going to win, so you don't worry about it too much. As I went out for the university, I would travel on my per diem, and it worked out fairly well. Then suddenly I had the opportunity to go to New York for a commercial firm and attend a 5-day course. They wanted me to condense it and bring it back—just forget the expenses. I came back, and you'll know this was many years ago—I came back from New York and submitted an expense account for $84. The comptroller called me and said, "Jim, are you sure this is accurate?" With professorial sensitivity I said, "Why I can prove *every penny* on that sheet." And he replied, "Wait a minute, wait a minute. Most of our people can't get *out of town* for $84." Then he explained to me how an expense account is kept. He said, "First you count the amount of money in your pocket when you leave home, then the amount of money in your pocket when you return home. You take the difference between these two amounts and judiciously distribute it over this sheet we give you. Now with practice you learn to use a large number of ones because you'll certainly have to change some to fours. Never use up all your ones because you are going to need a few sevens. Always form a seven so it can be made into a nine. Keep the digits to the right so you can add an extra one if necessary. And if there should be a policy of the company against liquor, remember that long distance telephone calls cost about the same amount."

To get down to the point very quickly, what would such a company have? Accounting, not control. Isn't it amazing how many people still think accounting is control? Accounting is an *instrument* of control. This is getting the instrument and the concept confused. So as I talk about evaluation, I would like to try to keep techniques separate in your mind. You can vary the technique, way off into the distance, but there are some fundamental ideas I'd like to drive home hard that may be the basis for some controversy.

Here are my presumptions before I start on the topic: that there is a reason-

able distinction in every performance between managerial, technical and professional segments of the job; that every manager as an individual manager has certain managerial responsibilities which are delineated from his professional and technical responsibilities. At the lower level of an organization, the technical and professional will tend to constitute a major portion of the responsibility. As you approach the top, this dwindles until finally at the top, you probably have a very small piece of technical or professional responsibility, and even that will often be under the heading of a hobby.

So, making this distinction in any job is very important: What is the man accountable for as a manager and what is he accountable for in the professional field? While this is a fuzzy point of separation, it's important that you know there are two areas, it seems to me.

I think the second presumption I'd like to make is that you believe in a solid philosophy of MBO, management by objectives, because I find that a great deal of management that doesn't head in any particular direction is a lot more appealing to people than the kind of management that takes people to predetermined points. It comes down to a simple kind of logic: if you don't know where you are going, you can't possibly be lost. Therefore, management by objectives determines whether the means at hand are being used to fulfill a particular destiny or mission.

Thirdly, I'm presuming that everyone has a sense of job description—and that those people who do not quite believe in job descriptions, which I'll discuss in detail later on, are probably just destined to be consultants in a one-man firm. Or, as an alternate choice, a hermit. When you get two people working on a common objective, we must have some understanding of who does what.

Number four, that a compensation system that satisfies the group may not satisfy the individual, and a compensation system that satisfies the individual may not satisfy the group. What I'm saying here, and I won't dwell on this at any great length, is that I believe that many of the good things we're trying to do in management today are substantially fractured by compensation systems that are ancient. I'll try to bring that out a little later on. I don't know of very many that are doing this well, so I just put this into a category that might be of interest to you for speculatory purposes.

Fifth, I presume that you believe in supervision; that there is a difference between the sensitivity down through an organization and the decision-making power between a manager and those who report to him immediately; that a man at the top has the right to be any place he wants to at any time and in fact should be; but that he doesn't make decisions except through fairly well-established channels.

Sixth, I'm making a presumption that I think is the best one I've written down: belief in the internal audit. The internal audit is not just a financial audit, but an audit of operations—the way in which things are being done as far as efficiency is concerned.

And seventh, there are some resources that are dedicated to the development of people in order to make the whole thing work. Now, to bring these into some relationship, even though they be presumptions, let's talk just a little about the measurement of people—the evaluation of managers and of their performance.

Defining Jobs

I think the first ingredient in any system has to be some sense of defining the job. Frankly, in 1973, I think many or-

ganizations are operating on a 1923 model as far as job definition is concerned. First of all, why should any description of a job be uniform in nature? Why should not one group of people be able to write it in paragraph form and another person be able to put down 1,2,3,4,5,6, and another one say responsibility by category. I think often this a perfect example of where the technique is more important than what is accomplished. A good job description, it seems to me, has to be understood in its basic philosophy, and that is, that a job description does not tell a person what he *does;* it tells a person what he's *responsible for.* Maybe I should say that again: It seems to me that, before you can get a solid evaluation system off the ground, a job description has to exist and tell a person not what he *does,* but what he is going to be held *accountable for;* what he's *responsible for.*

Look back of me and picture a baseball diamond: first base, second base, third base; four people in position: first baseman, second baseman, third baseman and short stop. Now while you are watching, there's a crack of the bat and the ball goes just to your left of second base. The second baseman takes off on a run, and when he's in easy reach of the ball, he comes to a screeching halt as the ball goes by. I think everyone understands why he stopped; short stop's territory! Now if you're the manager of this team, how many people do you reprimand? I think there are two bases for reprimanding here. The first is very constructive. I would reprimand rather constructively the short stop because he didn't fulfill his responsibility. But then I would reprimand the second baseman rather caustically because he didn't do what he could have done to help win the game.

The concept of team building I think is the basic concept from here on out into the future, and if the concept of team building is to be honored, then we have to go back and look through this whole idea of job descriptions, because we still have people who believe that if I stay within this little box here, nobody can touch me. As a matter of fact, you can always tell an amateur job description because there is a little sentence down at the bottom that says "and to do such other things as shall be assigned from time to time."

If we're really a team, we can't work with these little categories. In fact, if you take every person and put him in his own place, with no one bumping into anyone else, you have the amateur concept of organization. If you look down on an organizational chart, it can sometimes look just like a cemetery, where people never run into each other. If I'm the manager, the job will obviously be to separate people who do collide, and I still have a feeling that if that second baseman and short stop should collide, and one is knocked out, later when he wakes up, he'll still ask within the first few minutes: "Did you get the ball?" "Did we win?" This is the concept of organization that I think is very important. It can be destroyed if our notion of a job description is to define exactly what a person does. For two reasons, I think this is completely unworthy: (1) that this is the only basis on which you perform, and (2) it keeps everyone else from performing what you're going to perform.

Performance Standards

A second part, I think, is establishing standards of performance for the job. We have not adequately delineated responsibilities from results expected. I would like to offer everyone in this room a new job. In this job your single responsibility will be to hire other people to do the same type of work as you are doing. I will send you candidates, and all I want you to do is select people that you think

will perform the technical work in which you are engaged. For accepting this responsibility, I will double your salary.

How many of you feel that you could not accept this responsibility? One of the things that I didn't tell you, however, is that if any of the people you select leave the organization within the first 2 years, you are through, too. Do any of you feel less capable? So, suddenly we find that in the evaluation process there are two things that ought to be more sharply delineated: the *objective* and the *standard of performance.* As a matter of fact, I am very strong in the belief that many of the mangement-by-objectives programs that are currently being adopted are largely gimmickry, and will fail within the next 5 years because they're putting objectives upon *people.*

I think objectives are upon *functions.* A *group* has the objectives. You see, if I'm the quarterback on the football team I say, "Let's go for a first down." Did you hear me? "Let *us* go for a first down." I look over to the end and ask him what I said. He says "you said, we're going for a first down." *We* are going for a first down. Now if I should come up to the group and say, "Okay, men. I'm going for a first down," when the line trots up, they'll say, *"Let's watch him."*

This is precisely what is happening today. Where objectives are put upon individuals we use it as a device to fracture the team in another way, in another direction. The *team* has the objective. I believe that we have changed our concepts a little bit here to the point where, as we build teams now, responsibility for reaching the objective is the responsibility of every member of the team; accountability rests with the manager.

I had a very interesting time recently talking to a friend who shared the idea that responsibility is on every member of the team and no longer just on the manager. He went a little beyond what I am willing to accept at this point, and he could very truly be right, but he said that accountability is also shared. I think accountability is rather narrow and is on the manager. But responsibility is everyone's responsibility and once you find that you have one man who holds himself responsible and accountable, with the objectives upon him, I think you're going to find a very inefficient system trying to accomplish something—and any attempt at team building will be almost a waste of money and time.

When we come to standards of performance, this is a relationship within the team between the manager and his subordinates. I hate that word, but let me use it because we all understand it. Within the team, the leader and the followers have an understanding. What is the activity in which the individual engages? Now, truly you could put the work objective upon this, if you wanted to: it's another kind of objective. The difference is that the standard of performance is on the *job,* not on the *individual.* If I have a man doing a job for me, and I'll just pick something in a broad category like a cost accountant for instance, then this job of cost accountant in my organizational mind is well defined. I don't care particularly whether Steve or Mary or Susie or anyone else has it, that is the job to be done and standards are on the job. So, I have the objectives on the team, and the standards on the job. If we don't have this clearly defined, I think you're going to find a great tendency for people to evaluate on *emotional* bases rather than on *factual* bases.

To return: The standards of performance are on the job; and the standards of performance may be for the job in terms of some very personalized things that people bring to jobs as well as very objective things. Sometimes they are silly, but the thing about the standards of per-

formance is that it gives you a very realistic relationship between your leader and the people on the team.

I have a silly little story that I tell to bring this out. Now remember, it's silly and it's exaggerated. One day one man walks in and I say, "Fred, what's that on your upper lip?" He says, "My moustache," and I say, "Yeah, well shave it off." He says this has nothing to do with my job. I say, "Get rid of it." He says, "Look, this is personal, Jim, this has nothing to do with my job." I say, "Will you get rid of it, please?" And just then Elmer, my boss, walks in and says, "Did I hear loud voices in here?" Fred says, "Yes, Jim was just telling me to get rid of my moustache." Elmer says, "Come Jim, you're not going to interfere with a man's private life that way." And I say, "Well, Jim will never know when I am kidding him if he takes everything so seriously." Elmer says, "That's what I thought." I say, "Of course." Fred says, "What's the pitch?" I say, "Keep it." Weeks go by, and finally I'm called in and Elmer says, "Jim, I'd like to evaluate the people in your area, and just get a little feeling on our succession chart where the next generation of managers is going to come from. I'd like to have you run through your people very quickly. Take Fred, for instance, how do you feel about him?" "Eh, I'd don't know; there is some intangible element in this man's makeup that leads me to believe he's really not cut out for this organization."

Would you like to translate what I just said? You see, he's still got the moustache. Kind of silly, isn't it? Is it real? You bet your life it's real. Seeing thousands of managers a year, I use this illustration and then go back and say, "What are the things you remember in your life where people were picked out and sort of segregated from the group that was promotable and that were silly, like the moustache. What were they?" I'd come up with an interesting collection of bow ties, white socks, no hat. One was that of not saying grace before meals. If you knew where we ate, you would understand. But these are *real*. These are real. Now, what we are trying to find here is that if that's the way a bird-brained supervisor believes, I think the person reporting to that individual has a right to know from the first day what are the things that may influence my retention, my promotion, and my reward system.

So standards of performance lay these out in an understanding within the team as to what we want when good performance will have taken place. In effect, we're laying down the base at this point for the future evaluation because the principle is that an individual ought to be able to evaluate himself or herself in the same manner and in exactly the same moment that anyone to whom this individual reports is doing the job under a responsibility. If we can't do that, then there is something wrong with the system.

Evaluating Performance

Now the second part of the whole story then means that after you put a set of standards on the job, you then measure the individual against the job. This is a delineation many people do not make, that the job stands out here and then we take the individual performing on the presumption that the individual took the job on some basis, which I hope would be result oriented, and said, "I believe I can do it, or I believe I can be trained to do it." Therefore, we stand off and measure this person against the job, against the standards in other words. This means that there are three different kinds of appraisal we are doing: The first I call appraisal. This is the evaluation for purposes of development. I think if you do not have an appraisal system where development is involved, the second system,

which I call merit rating, which has to do with evaluation for purposes of incremental salary changes, will tend to fail. And the third system is potential assessment. So, we evaluate people for three very basic reasons: First, to help them develop, which I believe is one of the primary functions of any manager, and to develop more talent. Number two, merit rating, which is an evaluation system for the administration of a reward system; and number three, a system for evaluating people for appearance on the succession chart; that is, for upward mobility or career planning.

Now, talking about the appraisal, which I think is the critical element in evaluation, I think we tend to exaggerate this, and here I know I'm going to fly in the face of many things that government employees tend to do. I hope you'll forgive me, but many of the things you do in your systems—I'll be very frank with you—I don't believe in; I don't think they're good. But I think that in some cases they are necessary because of the size of government, and because of its other overriding factors. So please, if I sound critical, I'm also understanding.

Elements of Good Appraisal System

The first part of any good appraisal system, it seems to me, is when you sit down and evaluate an individual against the job he has taken on, and you do it in light of some kind of guideline—a piece of paper. Most evaluation systems I see are far too complicated. I think that maybe the best one I ever saw was on two sides of one piece of paper. It had four questions and these are the four questions that I look for in any system.

First, is there a clear answer that we can get about the individual as to what the man is doing well? That's the first question I'd like to have answered in any evaluation system. What is he doing well? This is based on the presumption that, if people are retained in an organization, they are retained mostly for the things they are contributing positively, and that you don't make it a negative kind of experience—that it is not killing people off as they say. What is the man doing well? When you identify the three top things that a man is doing well in relation to the job, I think that's about as much as I need, because at a later point when I talk to him, I'd like to talk to him about what he's doing well, as truly as about the areas in which he needs help. Three, therefore, is the number I'm looking for. I also like to identify what he's doing well because, in the development of the individual, it is often more economical to help increase his strength than to spend time or money overcoming a weakness. Many weaknesses are tolerable, and you could spend better time helping him grow to be a big person in one thing even though he may have faults.

The *second* question I ask is "Where does he need help?" I don't say what is he doing wrong, but wrong I think is part of the management job where I ought to make it right. So I ask where he needs help. Contrary to many systems, I like to ask for just the three top weaknesses from that set of standards that we drew up earlier.

I want to know, of all those standards for that job, which are the three that show through as the places where I would most like to see change. Now we're going to talk about this very frankly later, but right now, I'm trying to identify it. I say three—why? Because the purpose of appraisal is development. Then I ask the question, how much can a man develop himself in a year? My own reaction is that, if every manager in any organization, including this one, could overcome *one* of his major weaknesses—one per man, per year—we'd

have a dramatic change in the management of the organization totally.

If we can only get a change of one or two characteristics in an individual in a year—how much raw material do we want to uncover? I find that many an evaluation system concentrates on this factor *ad nauseum*. I find so many identifications about what he or she is not doing that they give up and say "I have so many things wrong with me, I guess I ought to start enjoying them, rather than trying to change them." This dulls development. I only want enough raw material from this process to take me through 1 year with a little promise to the future as you'll see later on.

The *third* question I ask is, "What are we going to do about it? Do we have resources that we are willing to dedicate to change?" I don't see much use in the evaluation system if we are not going to do anything with it. What I am talking is appraisal. Here, I feel that in areas in which there are failures we want to dedicate resources to see if we can help the people change and, so, I want to know, what are the change instruments. We were talking earlier about many of the places we go to bring about managerial change and we speak as though they were all alike. That, of course, would be just like a doctor who gives you aspirin of different colors. In other words, it would take care of anything.

One kind of development ought to be the internal and another kind of development ought to be external—sending a person out. One kind of development is very fundamental and another kind is very esoteric. It's very difficult to say Process A is better than Process B. Probably what we are saying is that, in development, these are two different systems but until you find out what's wrong, you don't know which one to prescribe. For instance, I find in very many cases we've overlooked the ancient system of job rotation—moving people from area to area for development—and we keep them in one department. They have a weakness and the reason that we don't analyze where or why they're weak is because they often have a manager who has tolerated weaknesses for a long time without helping the person change. Then they'll come along with an evaluation that will recommend internal development. I think that signals are there to get him out of that department and move him over somewhere. Some of you will remember Herman Hickman who was coach at Yale for a great number of years. You may remember that Herm was a very excitable fellow who would always walk up and down the sidelines playing every minute of every game. This one particular afternoon Yale was having a tough time and finally Herm stepped out on the field and yelled, "Get the guard out of those plays. Plaster him down. He's getting in the way." The referee blew the whistle and penalized Yale five yards. Herm got very excited, looked at the referee and said, "What was that all about?" The referee said, "Coaching from the sidelines." Herm said, "Why you stupe, you don't even understand that coaching from the sidelines is a fifteen yard penalty." And the referee replied, "Not for the kind of coaching you're doing."

It's so often true that, if a man is weak, he is weak because his boss has actually developed him into a position of weakness. Illustrated as a machine, we could take any organization and up at the top we'd have a big gear underneath a smaller gear, and down here a much smaller one. They all intertwine. When the man at the top changes direction 5 degrees, this fellow down here spins 64 times. So very often in the evaluation process we are asking the fellow down at the bottom to stop spinning whereas the evaluation of the total organization would show that a slight backtrack of 5

degrees up here would stabilize the entire organization. We have to know that this is constantly true in any organization. I am sure that at times I give my organization absolute fits by walking around in the morning and saying, "Did we ever think of * * * ?" At about noon time, someone will come out and say, "we heard this morning that you said let's get it done by noon." That isn't what I said at all.

So, what are we willing to do in an organization? Is your organization dedicating its funds to kind of a mass failure concept or a mass training concept on the basis that everyone could use some training? We do an awful lot of this today. I run into it in the field of training. You know, everybody ought to have sensitivity training. You got one fellow down here. He's sensitive when he went in, he's overly sensitive when he comes out. Now, he was all right until they got to him. In other words, there was no indicated failure there that needed correction. They weren't touching the most important point, and I see this in any number of training situations. It is a little ludicrous when you stand off and look at what we do with our training money.

The *fourth* and last question I ask is, "What is his training potential?" Potential for the future does not bother me very much. I get more worried about answering that question in terms of the development of the individual so that he can keep up with the state of the art in the job which he already has. There are a great number of people today that are being evaluated as having future potential and they are never going to reach it. They are going to get fired first. Why? Because the state of the art in their own job is moving faster than they are, and while they are getting ready for 10 years out, they haven't gotten past this year. There isn't a job that I know of today, particularly in the professional lines such as you people represent, that would not indicate that every person ought to be dedicating himself or herself to some kind of continuing education just to stay up to par. In much of our evaluation we do not separate this from getting ready for the future.

So, I ask those four questions: What's a man doing well? Where does he need help? What are we doing about it? What is his potential? This is evaluating a man against the job we've asked him to do and his potential, to which formally or informally he agreed when he took the job. Now, if we don't have the standards of performance and we don't have the job description, people generally accept jobs only by title. When they do this, then you're almost forced back to a kind of what I call "personal evalaution." Now we get very personal. We don't evaluate against the job but we ask is he brave and clean, reverent, kind? So you try to develop on personal characteristics rather than on results. This tends to exaggerate the whole end of what we are trying to do because I don't believe that in most organizations we are trying to change people. I don't think that we should be interested in *changing people.* I think we are trying to *change what they do.* People change themselves as they so wish but I think we can tolerate all kinds of people, all varieties of people, as long as they are getting the job done.

Once we've filled out this piece of paper that I've just finished describing —checked off and answered these four questions—we then go into a review process which is often overlooked. In the evaluation of an individual, we now tie in that evaluation with an evaluation of the team. We therefore tie the individual into the system, so to speak, so that if I have evaluated the four men reporting to me in my own mind individually to see how they are doing the job that's

been described, I then must go up to my boss and review the entire team without any paper. Usually what you'll find is that a man goes upstairs and says, "Sir, I've finished my evaluation and I have a group of fine people who are doing a splendid job. I'm very glad to be with this group." The boss might then say to him, "Well, why aren't you reaching your objective?" And he'd reply, "Well, I don't get it." To which the boss would respond, "Remember when we talked about organization, we said that if the organization were ideally working, then the efforts of Tom plus the efforts of Ed plus the efforts of Fred plus the efforts of Marion plus your direction will equal the objective. This is what organization modules are." If he then understands, the boss can then say, "Well, you said that these three individuals are doing very well. I guess we put our finger on the problem as to why you're not reaching your objective." You see, if one plus two plus three plus four plus the manager equals the objective—a basic module of organization and these four down here are doing extremely well but we're still not reaching the objective, then we're forced to the conclusion that there's one man who's not doing well—the manager.

We really don't put this all together in many evaluation systems. See, I want to know if the team is doing well—then, probably without much criticism, I will accept the individual manager's evaluation of his team. But if the team is failing in its objective, then I try to link the whole system together and find out does he know who's failing. If he doesn't, he is! And that identifies what my problem is for development.

After this appraisal review, I also ask —Where is the man in the organization who is ready for promotion? I want the first word of promotability to come from the man's immediate superior. My experience has been that any man has the capacity to look good—long enough—for any other person to pass through the department. But it's when you work with a man or woman every day of the week that I want to know, what does that person look like, results-wise, to the man who is the leader of the team? You'll get some biases, but I don't think they'll be any heavier than the biases of a stranger.

Talking to the Individual

After this appraisal review, I am then ready to go down and do what I think is the most important part of the whole evaluation appraisal problem, and that is talking to each individual. Here I want to sit down privately with each one. In the old days, we'd just call a person in and say, "Well, let me talk a little bit about your performance," an authoritarian manifestation if I ever heard one—in other words, "God is speaking, and I will make judgment." Instead of that today, with standards, we do it an entirely different way, particularly with professionals. I would say, "Ed, how're you doing?" If we'd agreed on our standards of performance, Ed knows how he's doing just as truly as *I* know how he's doing! But basic to good motivation is the fact that he accuses himself rather than I accuse him, because he wants to get the job done, we presume. Now if he does this, I'm in a wonderful position to dedicate resources to helping him grow.

I may also ask him about his future—where does he want to go in the future? If he's doing the entire job today, I want to be sure he understands that his first developmental obligation is to get the day's job done, and in the evaluation I have to drum this home rather hard. This is the stepping stone for the future; the future is not job-oriented, it's characteristic-oriented; we don't know what our futures will be, even tomorrow. But I *can* evaluate today's performance. On

that basis, we can have a talk back and forth. Now, at some place in here we switch gears and I say, "How about the future?" If he says, "I'd like to climb on, I think I'm ready to move up, I'd like a better job," then I think I have to look to the future and the kinds of characteristics I see in the future that I think I'd want to visit with him about. These are no longer job-oriented, but rather general in nature.

First of all, I think the average manager of tomorrow will have to know infinitely more about mathematics, for instance, than most of us ever did in my generation. I don't think he'll have to know how to build a program, but you sure want to know about the fellow who did build the program. Today we're having any number of cases where managers are being held accountable—making decisions that an old seasoned executive used to make on the spot. These decisions are now being made in the program, and when the program doesn't seem to be true, they have to know enough to at least ask intelligent questions.

I think we'll have to know a lot more about the behavioral sciences than we had to know in my time. I don't know very much about what the future is going to be like as far as government is concerned, but I feel very strongly that the people of tomorrow are going to love and fear and be insecure and have things they're proud of and cry, and all these sorts of things that used to come under the heading of "human relations" before we recognized them. These things will happen—human nature isn't going to change that much. I also think that we're going to have to know a lot more about the economic illiterate. When you talk to him about the upturns and the downswings, he doesn't even know what you're talking about until he's read at least three copies of the *Wall Street Journal.* Somehow, we're going to have to know more about the impact of economics upon our daily lives if we are going to be part of a dynamic organization.

I think we are going to have to know a lot more about the social sciences. This is one that I call seriously to your attention, because many of the things that you will be called upon to audit will involve this. I think this is terribly important. I think we're actually wasting millions of dollars trying to do some things that are mainly just part of a reaction. We hope whole problems will just go away if we spend enough money over enough years, or, something else important will come along and drive them out.

Let me take one that I feel very sensitive about—I'm going to be kind of head-on about this, but I hope you understand that I'm just trying to get it into a management pattern. I think we're wasting money in many of the things that have to do with the hiring of minorities because we have the feeling that if we can get the top people in a lot of agencies and companies together in one room and if we can give the blacks more jobs, we'll solve this problem. Apparently, if the whole top group decided to give blacks more jobs, it would solve the whole problem. I don't believe this at all. I have a deep feeling that, as you go down through the organizational structure and policies are not brought into sharp focus, the number of biases tends to go up—for security purposes. This is completely aside from such elements as justice or our religious beliefs or what have you. I think you honestly have to accept that many people at the bottom of organizations tend to rebel in very subtle ways. You know, they feel that if a man can get a job because he's black, then maybe he can get *my* job because he's black. Meanwhile, the president is saying, "Let's get this thing going. Let's get careers. Let's take a look at the affirmative action programs," and so on.

Much of this, I think, is a lot of wasted effort. Until the man down at the bottom wants to develop the man regardless of characteristics such as sex or color, not very much is going to happen. Oh, something will happen, but it'll be foreseeable. Because here's what happens: Let me get away from government organizations and take the president of a company. Let's say he has a government contract and you're going to have to take a look at it. The president goes to a meeting of the National Alliance of Businessmen, for example. He joins with other presidents and they all say, "Look, there's a cycle that we think has to get started to get more blacks jobs. Then, the upward-aspiration factor would set in—they'd want better educations and better education would lead to a little competition that's way beyond our day; the social environment will be a little more just." Our president says, "That sounds very good to me." So, he comes home one day and says to his vice president, "I heard a very convincing argument today for being an instrument of social change in this organization—so I volunteered to take five blacks. See what you can do with them." The vice president utters an exclamation which in another setting would be described as a prayer, and he goes down to some plant manager and says, "I don't know where the boss was this noon but guess what he brought back. You've got three." The plant manager goes down to the foreman and says, "You know that job you've been yelling about? Well, I've got a candidate for you. Good luck!"

Now, I think the factor of security begins to show through. Watch what happens—and this has to be evaluated. The foreman takes his new man and says, "come on over here and let me show you how we run this machine. You put this piece on the machine like that, press down on the foot lever and pull the hand lever. Try it." Then, "No, that's a reject. Now, just take your time, will you please? Concentrate, it's very easy. We've got kids in here that can do this thing. Try it." Finally, "No, just a minute." He goes over and says, "That black man can't handle that. He's got a different background. He's been deprived." Now, the plant manager says, "Yeah, I've been watching." So the black man then gets a job pushing boxes around or running the elevator but, "We've got to get someone on that machine. Any suggestions?"

The foreman says, "Yeah, I got a brother." "Well," says the foreman, "bring him in and see if he can run that machine." So the foreman brings in his brother and says, "All right now, brother, let me tell you how we run this machine. You put the piece on the machine like this, slap it with the side of your hand, so it's flush from the floor. Press down on the foot lever and now on this particular machine, if you'll bounce it just about an inch off the floor, as you quickly yank the handle, it'll come out nicely. Try it, brother—beautiful!"

What just happened? I'd like to use a word I'm sure is out of context for many of you, but I hope some of you will be old enough to remember the one that used to be used and I use it in a good sense. If I *love you* in the sense of fraternal charity, I teach you the *art* of the job. If I *tolerate* you, I teach you *only the technology.* I think much of our developmental activity today to try to get accomplishment reflects more tolerance than it does fraternal charity in wanting a person to learn. We just do the job as it's outlined.

What I'm really suggesting is the evaluation. You cannot draw your entire conclusion on the basis of that set of standards. That isn't the only thing it takes. Have any of you ever been through the experience of assembling toys on Christmas Eve, following the "easy to follow" directions? You know, you take

the red wire in your left hand and the green wire in your right hand, put them together and the light will come on. They'd never light. I used to go to my neighbor and say, "Andy, give me a hand," and he'd look at me and say, "Oh, yeah, Jim. You take the red wire in your left hand and the green wire in your right hand, put them together and then, add just a little spit—and there's the light!" I went back and read the instructions and the word "spit" did not appear once. Even on the toys from F.A.O. Schwartz, it didn't say saliva.

In other words, why is it we believe that the written word, the manual, the technology, will do all of the teaching, all of the developing, all of the evaluation? It *won't* do it. Or, did you ever drive down a super highway and come to the conclusion that the engineer who put up the directional signs *already* knew where he was going? And, so he lost his entire sensitivity for the person who was learning for the first time, driving for the first time, because *he* knew before he started. It's very scientific, but inadequate.

So, what I'm saying is that in an evaluation process, I don't think we can really have many of our laws today filled unless, in the standards of performance, there are some requirements for social change, and things that people will do if they are adequately carrying out the mission of the organization from the standpoint of social change. This is very difficult. *Very* difficult.

Now, in the personal conversations at the end of the appraisal, the evaluation, you do most of the talking and I do most of the helping. I try to tell you what we're willing to do without the resources. I think this is a very important part of the whole growth of evaluation. Then, when it's finished, I tear up the paper and throw it away. This breaks the heart of the average governmental person. My feeling is that the longer the paper exists the things that are written on it are a little less than the unvarnished truth.

So, I get Ed in and I say, "Ed, how you doing?" He says, "Well, I don't do very well on planning." I say, "You're understating. You're lousy at planning." Ed, generally, is a very promising young man, and while he has some noticeable deficiencies, particularly in the area of planning, I feel that his general background and other successes will lead to his eventually being one of the best men we have in the organization. Very seldom in files do we say this man is totally incompetent. You know, if I could give him a mark, zero is as low as I could get it. So, we tend to verbalize. I say throw the paper away and you're all through until next year. Because if we have good supervisors, it'll work.

The Merit Rating

Now there's another evaluation that has a different purpose. And that is the evaluation known as merit rating. This is one where you sit down once a year and instead of being your friendly counselor, your helper, the leader, I have been cast into more of the role of judge. Now I have to sit down and go through that set of standards of performance again, and line up all the things you seem to be doing that are correct; on the other side, all the things that are incorrect, and on that basis, make an award of salary. *That* one goes in the files. That is, in many cases, a quasilegal document that has to be preserved. But that has to be separated from the other evaluation or I maintain that very little development will take place.

In this one that has to do with merit rating, we may have an interview or we may not have an interview. In many organizations where merit rating comes out advantageously, the person says you get your raise. If the employee is asked: "Do you want an interview?" he says

"No, I'm happy. Don't waste my time." On the other hand, if he didn't get a raise, he can actually demand an interview, and yet we know systems, don't we? We're under certain systems where this prevails and you have this document. It's interesting that within a system where a person can be satisfactory, unsatisfactory, or outstanding, how many people get to be satisfactory.

Often you ask the question, "Why is it so many people are satisfactory?" For years, I've heard the answer come back —"Because if I mark them unsatisfactory, there's an appeal system where I may be more the defendant than they are."

If I mark them outstanding, then they're going to be after me for more money and I'm going to have to justify it, or we don't have a salary system that'll sustain it. That's not a very good system, is it? And, yet, it's a system that has over history produced straight averages. And this is often what we get with this kind of merit rating.

Actually, I think the system used in many governmental agencies is a cross between the two, neither working as ideally as it could. But I'm not talking to that point. You're too sensitive to that, but I'm talking to what you may see when you step into a process of auditing that could be better than that with which you're living.

The Succession Chart

Now, when this is all over with, I think we have to develop what I call in a good organization a replacement chart, a succession chart. One of the first questions I ask many companies is "May I see your replacement chart, your succession chart?" It is amazing how many people don't have one. Yet, for the good administrator, it's the best way you know about your in-depth succession.

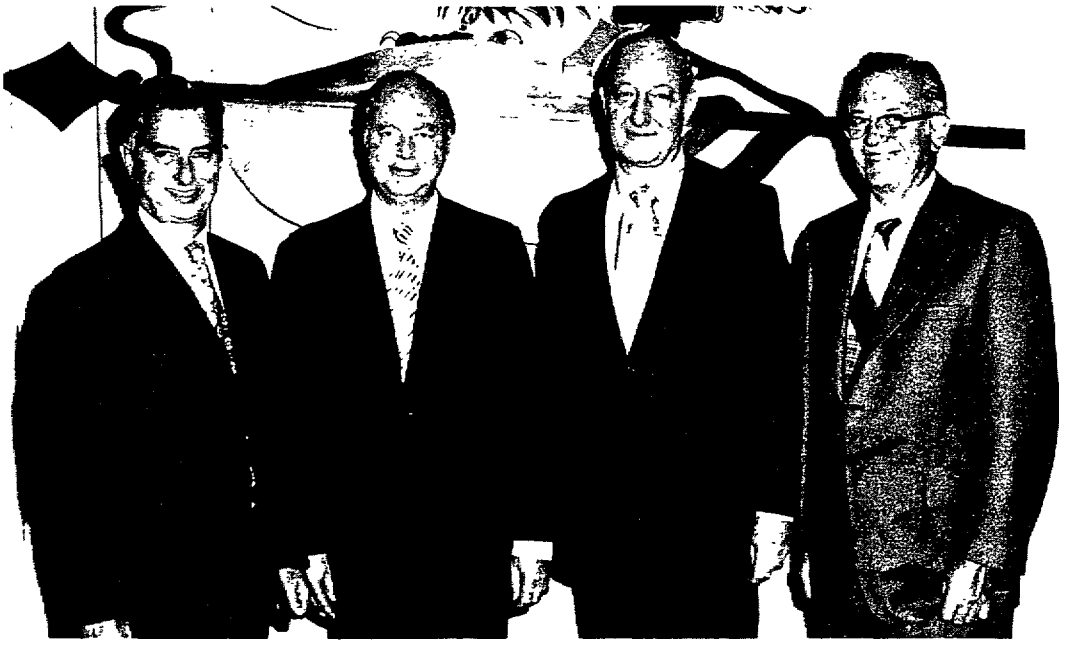
One of the first errors made is that we sometimes draw up these charts and they're *forever.* I think they ought to change, maybe twice a year—certainly once a year. A person who's on a succession chart could be bumped off by one person coming along some time within the next 12 months, and that's the way the world is. But, I'd like to know on a now ready base. I've seen these elaborate systems where somebody does evaluation, comes up with succession, and they come up with ready in 6 months, or ready in a year, or now ready. The only one I believe in really is the now ready. The other I think is interesting for personnel departments, but I don't want it on my chart for evaluation purposes.

I want to know how many ready successors do I have showing through right now. Now, I cannot promise that in every case this person will get the job. I just want to know how healthy is our development? My experience has shown that people that are designated to be ready in 6 months or a year will be ready tomorrow morning if the boss is hit by a truck tomorrow morning. Somehow, they're ready. To the contrary, I've seen a great number of cases where people are declared to be now ready, but when the boss is hit by a truck tomorrow morning, they're judged to be not quite ready.

What I want is an honest to God assurance that if you're hit by a truck tomorrow morning, someone is showing through in our organization that is ready to move up. I know that is very difficult in an organization like yours, but I am talking in terms of organizations you may have to audit that are mostly in the private sector.

Evaluation Is For Development

Evaluation, therefore, as I've talked about it, has been an evaluation based



James L. Hayes, President and Chief Executive Officer, American Management Associations, lecturer at GAO on September 25, 1973 (second from right); on left, E. H. Morse, Jr., Assistant Comptroller General and Elmer B. Staats, Comptroller General; on right, Leo Herbert, Director, Office of Personnel Management.

on the individual's performance. The evaluation of the individual should be against the job he has to do in the first instance. If the job is done adequately, having been described as best we know, I tend to think your evaluation system will fall flat. I think evaluation should be based on these principles. First, you are out for development. Development will take place by individuals themselves if they know they're deficient in their performance. Not always, certainly. I believe very strongly in Parkinson's Law, and I have a few of my own. I call them "hazy rules." The first one is that a man will never intentionally fashion the club with which he is to be beaten to death. Therefore, if the whole evaluation system is one that hinges around knowing the notion of continuance, advancement and reward, and not development, I don't think you're going to have a very good system, because people won't have high standards if they believe it's only going to be judged for negative purposes.

Second, the big thrust I've tried to describe is that we try to evaluate people in terms of their preparation and their backgrounds, from many sources, in order to see whether they can move into the future with the first step to the future always being *completion of the present job.* This is basic. As I told you before, this is very elementary, and I hope a little provocative.

I hope that you'll be talking about this later today and maybe even tomorrow.

DISCUSSION

Sir, how do you develop evaluation standards for managers?

Mr. Hayes: The element that comes in here is based on presumptions. You know you have to go back and say, "Now

what is management?"—which is really what you're asking. In an earlier discussion, the point I was making was that very often we're trying to evaluate something of which we don't have a very clear notion. Now I'm making a generalization and therefore, as someone once said, "all generalizations are false, including this one." Nevertheless, I first want to know: Does he plan? I'm not talking about a highly formalized kind of planning, but can I delineate the way that he behaves? Does he give people in the organization a little lead as to where we are going? Or, is he "management by crisis, or unit?" Do you know that his best thoughts are after the fact, because you can always show up and say "that was wrong"? When asked, "what's right?" Does he say "act and I'll tell"?

So I would look to see whether he gives people the lead. I think every good manager should. I've never seen one who didn't, and this is a basic posture. Now, remember that this is completely aside from the technical thing known as "a plan;" that is a technique.

Secondly, does he organize? Does he say to people, "Look, try not to talk about that job description of yours, it isn't up to date. You know we've had it since 1913 and maybe we ought to change it." I would think any job description has to be updated at least every 2 years. I am very suspicious of any job description that doesn't have a 2-year update date on it. I'd like to know what date you're coming in for review if you work for me. (Otherwise, you know, it will cause you a little recollection right now to think of what drawer you put your job description in when you came to work here.)

Does he say we have to change the job around a little bit? We no longer need this and we have to move this over here and I want it all together? Does he believe, for instance, organizationally in team building? I think that's terribly important. If I take a professionally oriented organization and we still have the old authoritarian structure, really, I'd have to say that the top manager is not a very good one today.

Does he listen to people? Does he bring them together and consult? That doesn't mean he works for unanimity. That's time wasted in most cases. The definition of eternity is to get everyone to agree. But he's also a good manager if he senses that most of us do things we don't agree with most of the time. You know, there's a line beyond which no one of us will go, but there are at the same time a lot of things we disagree with. You know, when I come home at night and my wife says, "We're going to a movie tonight—we're going to eat early and go to a movie." What do I say? "Okay."

Maybe I don't agree. There are other things I'd like to do, but my point is, if we're going to have a debate about something, it isn't going to be about a movie. We're not going to draw the line on that one.

When I wake up in the morning, I go out and read the paper and finally, she comes out and says, "How about having bacon and eggs this morning?" I say, "Well, I was kind of hoping we could get away with toast and coffee." What does she say? "Okay," and this is the way it is in most organizations—team building.

Back to the manager. I'd like to know: Does he lay down a set of conditions where people are motivated to do their jobs themselves, or is he a mechanistic type where he is more involved in manipulation than motivation or setting objectives? Here's where we'll be by tonight if we finish the job, here's where we're trying to get with this job. I even

see it outside, with CPA firms. Someone goes out on an audit and a manager will say, "If we finish this audit according to our own standards, here's all the conditions that will prevail." That's a manager, setting that up. Otherwise, each auditor may have a different view as to what we're trying to do.

I want to know if the manager sets up control points so that when the thing is not reaching its destination, we find out early in the game and not when we get all through. Or, does he wait until we get all through and we're in Indianapolis and he says, "Oh, my God, I was trying for Chicago." My point is, look at the map early. Let's not take the road because it's a good one—let's try to find out where we're going. We can set standards on this.

As a matter of fact, there's an interesting thing. Having had the opportunity over a lot of years to be in a lot of consulting jobs, I go into many organizations, for example governmental organizations, and they say, "Yeah, but *our* field is different." Very interesting, that's the only thing they all say. Every group I've ever seen says, "*Our* field is different." But you can set standards in governmental jobs just as in anything else. It's more difficult, but most of what we know about management has been derived from the military, from the building trade, and from manufacturing.

Yet, better than 60 percent of all the people employed in the future will go into service industries, or service-oriented industries, so to set standards of measurement for those jobs is going to be terribly important if we talk to a term like "efficiency."

In terms of your experience, do you see a need for the government managers to interchange into the private sector, or even with other governmental units at the state and local level in order to broaden or diversify themselves?

Mr. Hayes: Oh, I definitely do. I'm very strong on that, incidentally. But let me lay out a background. I've made a lot of enemies by saying this other places than here, but over the years I've had many opportunities to deal with governmental managers, and I make this flat statement: On the whole, I would say that the government manager is as good a manager, maybe a little bit better than the average one in the private sector, and the only difference is that the average government manager pictures himself just a step higher than he should in making his comparisons with the private sector.

What I feel is, that if I could take government, the public sector, and the private sector, their managers are quite comparable. I could never say to any group that managers in the government are no good. Quite the contrary—most of them that I've found are pretty dedicated people. Your organization is like mine, you know. My definition of suicide is being beat by the elevators at quarter of five, but all organizations have those people.

The only thing I find is that when you get into the governmental sector and the man sees himself against the private sector he usually puts himself up on a certain plane. As I see him, if you put him into comparison at that level, he may fail because he's picked a wrong level of comparison.

My experience, however, is narrow—mostly in the Department of Defense. You know, the colonel says, "Well, I think I'm the equivalent of vice president." Okay, then we're in trouble. But if he says, "I'm one level below the vice president," it's not a very good illustration. I think he should be *outstanding*. Do you get my point?

I think that's important. I think that another thing that is important is that the success of government management

has to come from learning new ideas from the outside, both in the private and the public sectors. Otherwise, you get the "we're different, therefore, only *we* can teach us" business. And usually what you then run into is the old story of those that can't do, teach. That gets you into a pretty sad type of climate.

The third factor is that I think it would be very healthy for the private sector to know more government managers, as well for you to know what they're doing. The only difference is, it's like backing two elephants in a corner. Very difficult.

As former dean of a collegiate business school, and now working closely with business and government, do you feel that our graduate schools of business are doing an adequate job of preparing students for the work environment?

Mr. Hayes: I think they're doing an *outstanding* job. The only thing is, I think we presume too much in connection with the school of business—that a person is ready the minute he steps out to take on a job. The thing that I find missing is that we have not yet devised a good system. We have some experiments. As a matter of fact, you have been part of some of this—that between the time a man gets out of school and the time that he gets into the work environment fully, we have nothing in the way of good internship programs. I think that the man that gets out fits in very well after the first couple years, and he can be just as good, probably superior, to many other kinds of tradesmen. Now you're asking me a question where I must generalize.

There are a little over 600 schools or departments of business administration in the country. I'm talking about approximately 150 of them that have been fully accredited. There are all kinds. In your question, there is a very interesting aspect to which I've talked many times, and in which I have an interest—that knowledge alone won't make a manager. If I could tell you all there is to know about management, gave you all the books to read and showed you all the films and brought in all the experts, I don't think you'd be any more ready to step into management than if I did the same thing with golf. Until you get the little old stick in your hand and you get out there and try it, you may *know* management, but you can't *practice* management.

So, in evaluating any organization, I think you look to see whether the organization form is such that it allows people to develop judgments at the lower levels where the magnitudes are such that they can gain insights into their own judgments. I have a little story that I tell which you may appreciate. My son comes to me and says, "Dad, I have the opportunity to take a course in literature or a course in typewriting. What should I do?" Now, for me, it's a very simple decision; I can give him the background in less than a minute. If he'll just go do it, I think my chances of being right are very high. But I think I'd spoil him if I do that. I can say, "Jim, here are the advantages and disadvantages of a course in literature; and here are the advantages and disadvantages of a course in typewriting. Now, *you* make the decision." He says, "Thanks, Dad, a wonderful explanation, and I appreciate your time. I think I'll take the course in typewriting." I say, "Like heck you will!"

Well what happened? See, I won't let him make that decision at that lower magnitude. This is what is happening with many graduates of schools of business. To be very frank with you, I think most graduates of schools of business are being brought into organizations at too high levels. Therefore, they don't have the opportunity to test their own judgments, and they rely totally on their

own knowledge, which I think is excellent. What we try to find is some good internship program to accommodate them. I think the present internship program is the first line supervisor or the immediate superior allowing that man to develop his judgment. Because, you see, what we're doing with many young people today is we're not allowing them to make their first independent decision of a magnitude commensurate with their age until they pick the person they're going to marry. What a time to practice!

We're doing exactly the same sort of thing in many organizations. I can't think of any institution that's been more examined, dissected, reconstructed, torn apart than the good schools of business.

The only thing is, it is not the same as what I call continuing education after you get out because that's the time to do the theoretical thinking—while you're in school.

You had a theme running through your comments about team building and yet many colleges and universities, AMA, and other not-for-profit organizations are highly individually oriented. Is there any movement towards team building in them?

Mr. Hayes: Well, I can speak firsthand about AMA and there definitely is. But the thing is that it is so difficult to change an organization and I think this is one of the things when we get an audit going that we find some people don't appreciate. They don't ask what did you look like last year and what do you look like this year? They expect instant change.

For instance, if you heard anything I said today that you thought made sense, but which you don't do, then you went back into your own organization and tried to do it immediately, you would have the biggest mess you ever laid eyes on. You can't change from what you're doing incorrectly, perhaps, to something you want to do correctly and make a change just like that. So, to change from a centralized, authoritarian organization to one that is highly oriented to team building, and this is just a guess on my part, minimum time for a simple organization, I think, would be about 3 years—more than likely, closer to 5 years.

In our own organization, the best that I'm familiar with, I think we've started a great team-building operation at the top. Now, when you come down to the next level, it takes them longer to react. Because, you see, I'm in a good position for team building, because I'm president, and the president in the average organization is the only man with no future. I'm there and there's only one place to go from there, unfortunately. That's out. But the next man down is bucking, so therefore, the new security causes him to exercise a little more authoritarianism than I may be inclined to. We've set a 5-year goal of changing the whole thing, and I'd say on a scale of 100, we're just about at the 50–50 point. Parts of it are still very authoritarian and some parts are team building very nicely.

Colleges and universities are a totally different kind of organization, in my opinion. You don't really understand why the Romans had a hill for every god, until you work for the faculty.

The concept of every professor being very strong in his own class is one I would defend to the death. But we do not recognize the change in what colleges and universities are all about. The college and university organization is medieval in its makeup. The faculty is the university. That was a medieval concept based on the idea that the faculty stood still as students traveled. In the medieval days, you would go from Rome to Bologna to Innsbruck and so on, and you sat under the various professors and when you were ready you sat for your examination and received your degree.

Well, over all these years, we've changed, you see. Now, we have a situation where sometimes as high as a third of the faculty is moving and the students are standing still. We get all concerned because we've got all this energy we put into things that have to do with dormitories and how students live. In very many cases our whole idea of education is complicated by the fact that we have to pay off on the dorms so we have to be careful who we flunk—because we may not have a sufficient population in the dorms to realize the amortization.

This is the thing that we're into. So faculties are unique in their organization and I think they're in a great transitional stage right now. I can't talk to them as being any portrayal of what I said. I think there aren't many good team-oriented organizations yet, but I bet my bottom dollar that within 10 years, the change in this is going to be significant, because we have more people today that can think. You can go back not many years, if you're 51, 52 years old, something like that, and you'll find that the authoritarian system was very commonplace because many people came in and did not have degrees. They were taught in GAO what to do, and I'll make a supposition here, but I'll bet that you had more bookkeepers than accountants. Now, that meant that you got a deep loyalty to the authoritarian system.

Now, we have people with one, two, and three degrees that are sitting in your organization. If education has any one big payoff, it seems to me that it's an ability to think and frankly, a lot of organizations don't know what to do with people who think, but I think the direction is team building.

You made some observations about the sense of putting into your management formulas something that has to do with social change as a management responsibility. How can we really do this so it will work for the minority groups—women, blacks, chicanos, and others? How can the first-line supervisors be motivated to train minorities?

Mr. Hayes: I wish I was very sure of this but there hasn't been enough real hard experimentation so that I can read it. All I can do, therefore, is speculate, but in speculating, I would say this—that down at the bottom level, we will often hold a person responsible for the achievement of certain results—a leader, a manager, let's say a first-line supervisor—and I think we should. I think that in the team building concept you have that bottom team which is responsible for a certain kind of results, which may be measured positively or negatively. Incidentally, I highly recommend that you think about the negative measurements. I think that one of those in my organizations would be whether there is any evidence of discrimination based on factors other than performance as measured against standards of performance.

As a first-line supervisor, I am not only motivated by, but I am reinforced in, my biases. If I ever set up standards of performance with you, you don't really know how you've done until you sit down with me and I make a judgment. Now, there may be appeal systems, but as a matter of fact, that is a weakness in much of our system. If you appeal, your chances of winning are pretty fair, because we don't have anything objective to measure both of our efforts against. But, if somehow I can say you will have done an acceptable job when these conditions prevail and you had a part in this, freely accepted it, you get an open evaluation. Now, I say that if I discriminate against you, it's rather easy to pin me to the wall, and if you bring false charges, it's for me to pin you against the wall. I just think it's a realistic approach. Motivationally, to encourage you to grow may be a little more difficult. I don't

want to look at your color or your sex, or any things like this. I just want to put down what the conditions will be when you have done the job whoever you are. If you say, "I can do it," I'll take you on, or if you say, "I can't do it," I will take you on, provided you know what it is you're going to learn to do in terms of results. I think we can get this objective. Perfect, no. I have complete faith that anyone who wants to discriminate has all the ability to do it. It's a terribly unfortunate thing about human beings, but I think we can minimize it with standards of performance. So, I'm not talking about a motivational process, really—I'm talking about a process where I say "get out there and do it."

As a matter of fact, I'll put it on the other side. I think that the worst discrimination against people in minority groups is their being categorized in a group. Nothing wipes out individuals so fast as grouping people. You know, all women. . . . Well, I'd like to think every woman is a little bit different. Someone says "I'm for women's lib," and others say, "Well, I'm not." I'd like to recognize both of them. I don't care whether you're for women's lib or not. Can you do this job? You hear "I'm a liberated women." I say, "Great, a liberated women doing the job." You know, I love not being liberated. I've got a woman who loves not being liberated doing the job and I think that's what we're really after. Otherwise, I think we interfere with too many things on the job.

How do you compare the way we develop managers in the United States with some other countries in the world, for instance, Japan?

Mr. Hayes: My exposure in Japan has been somewhat limited, but actually the differences between Japanese management and management in the United States are not highly significant. It's not nearly as great as we think it is. I think that manpower development in the United States is very close to light years against any nation in the world of which I know. Only, involved in those light years, that sort of leap that we've made in the field of management development, is a terrific waste of money. That's my own opinion. I find Japan highly significant in that respect. You know, we make a lot of comparisons with managers and that's a very interesting thing, but in Japan, the thing that is always fascinating to me is that before you get a decision on the top, you start with participation at the bottom and let it work up to the top. The top man, in making a decision, has had a great deal of participation coming up from the bottom. In the United States, we start at the top and get participation up here and by the time it gets down to the bottom, it doesn't make any difference what you say.

Now, both are exaggerations, but it is a different movement and it's much slower in Japan because you can walk in and say, "Would you like to go in a joint venture with AMA?" and the Japanese manager will say, "Let me think about it." I say, "Well, could I see you tomorrow afternoon and talk a little more?" And he'd say, "No, make it a week."

What he is saying is that we are going to throw it way back down and get all the staff work done—give all the stuff to my eight men before I make a decision. That's aggravating to us. We say, "I'll talk with a few of my trusted assistants, staff people, and then I'll make the decision." Incidentally, the people down in the line say, "Hey, did you see what happened, we merged." It's a different system. We just had a rather extensive study tour in Japan on management and some things were rather fascinating. Often you will hear that there is a built-

in system of loyalty in Japan. Your whole career is tied to one employer.

Secondly, they don't have high mobility in jobs in management. The relationship of workers to their employer is lifelong. In my life, I've had three different employers. When I started teaching at St. Bonaventure, I picked up some pension rights. Then, I moved to Duquesne and got some pension rights there and was vested. I moved on to AMA and now I'll get some more. Now, when I retire, if my pension is not a good one, who's gonna be the dog? AMA, the last one. See, I forget how we put it together but they've all contributed to my retirement. In Japan, because I don't make that switch to three different employers, I only have the loyalty to the one. And that brings about a whole different perspective. By the time you compare wage rates, you'll find that the amount of money we put into retirement plans and fringes as against the guaranteed security that the average Japanese employer gives to his other managers is not really much different. The difference is that we say we would rather have the bird in the hand than the one in the bush, but they'd say they'd rather have the one in the bush than the one in the hand.

They give you most of your advantages after you retire. We seem to give most of our advantages in higher salaries while you're working and a little less when you retire on the basis that the individual ought to save up for his own retirement, right or wrong. They say we know the individual won't save up, so we'll do it for him—right or wrong.

What is the relationship between pay and other rewards in government as opposed to those existing in private industry?

Mr. Hayes: Well, I'd have to say in all honesty that I don't know enough about your system to give you a real good answer. My observation standing outside is that I won't give you which is better because I can't think that the bases you have for security are higher than they are in the private organization. I think you're willing to take a few elements here and there that are somewhat negative. Your chances of staying in government under practically all conditions are far higher than they are staying in a job in the private sector under all conditions.

That is because you are surrounded by more safeguards of one kind or another. As to the pay itself, the money, I suspect that generally, on the average they equate reasonably well, but it's awfully hard to say—I don't know enough.

Do you foresee changes in the evaluation of managers in either the public or private sectors based on the thesis that some of the technical aspects of a job are easier to measure than the non-technical?

Mr. Hayes: I think as a preliminary, you said it—it is easier to measure the technical accomplishments than it is the nontechnical. I don't want to say it's possible or impossible. I think you can measure all accomplishments. If you know what you want, then you ought to tell what it looks like. The trouble with a lot of managers is they don't know what they want until they get something, and of course, that is a criticism of the manager himself. If I can make a judgment in my mind whether what you do is acceptable or not acceptable, there must be something in my mind by which I made this distinction.

Following my format, then, I believe that there will very definitely be a change in the way in which we describe jobs. I hope you will forgive me if I just make this criticism. I think what the government does is abominable. That is the best praise I can give it. In other words,

I feel a good job can be described on one side of one sheet paper, and I have a strong suspicion that the more you put into your job description, the more difficult you are making it to be evaluated. I see a trend toward simpler forms of job description—long range. I've seen organizations in which something like this happens. A grade 15 at the top of the scale wants to be a 16. So he gets someone to rewrite the job description and if we make it a little more vague, he becomes a 16. That may be an exaggeration of what has happened, but I'm sure you've heard of it. This, I think, is too bad. Very objectively, what I tend to see in government—and I'm probably informed only about 50%, if at that—is that governmental job descriptions seem to be largely written and directed on a compensation basis, rather than on delineating one job from another.

What I see changing is that a job description is not a basis for compensation. A job description should be a piece of evidence used to help the compensation department evaluate what is taking place, but it is only one piece of evidence. The other change I see is that, in describing jobs, we will go seriously to putting in more and more negative standards than our vain attempt at finding positive standards for some jobs; and this is true of most service jobs. To conclude: Managers don't know what we want, but we know what we don't want. So when what we don't want doesn't come into existence, we accept what remains. Let me run that around once more: Often we don't know what we want, but we know what we don't want. So when what we don't want does not come into existence, we will accept any remaining conditions. I think this is a great way of doing it because it gives people a lot of freedom in their actions. Just to give you a last simile—remember the Ten Commandments. Moses went up the mountain and God said take notes, and you remember Moses took notes. We are fortunate that we didn't have the paper industry, then we'd have more than ten. . . . But nevertheless. . . . The thing of importance is that most of those ten commandments are negative standards—"Thou shalt not. . . ." And the thing that I think is very impressive about that is, that this is really the basic document of human freedom just by saying a few things that you may *not* do. As long as you don't do those, all the other things we don't know about, you can do. That doesn't mean that some interesting things were not left out.

I think the great trend of the future will be *negative standards,* which are measurable—negatively. For instance, you will have done a good job if at the completion of an audit there are no comments made by an examining board as to the accuracy of your basic information. That's negative. Instead, we usually set up a whole series of steps and say "You will have done a good job if . . ."; "before going in you knock on the door"; "the first questions you will ask are . . .," etc. I think this suppresses freedom. You are an individual; do it your way. Now that's being somewhat negative and somewhat positive and then we can evaluate the individual against it. And again, one thing I think also will change in the future is the very sharp delineation between evaluation for money and evaluation for purposes of development.

GAO's Policing Function

The function of the General Accounting Office is then to police the agencies and see that they are handling the matters under the proper procedures, and not to go in and try to take the ball away away from the agencies. The General Accounting Office is our arm to police the agencies.

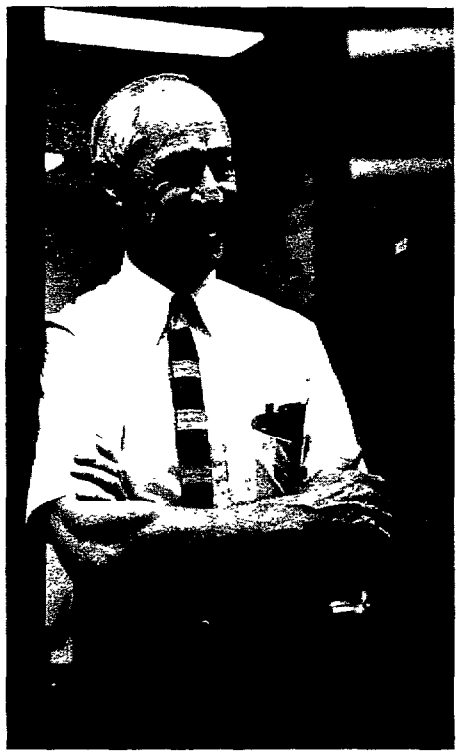
Congressman Bob Casey
Congressional Record
April 9, 1974

Good Report

I wish to thank you for the fine report, "Review of Reliability Data on Weapon & Space Systems" of December 9th.

The report is well-organized, clear, and precisely responsive to our inquiry. I am sure there is no other place in the country with the expertise to have produced such a professional piece of work on that subject.

Senator Mike Gravel
to Comptroller General,
December 17, 1974



Rensis Likert
Board Chairman
Rensis Likert
Associates, Inc.

A nationally renowned social psychologist, Dr. Likert is known to all persons involved in the study of management systems or organizational behavior and development. He currently is Board Chairman of Rensis Likert Associates, Inc., an organization providing professional services in the field of organizational development.

After receiving his Ph.D. degree from Columbia University, Dr. Likert began his career as instructor and then assistant professor at New York University.

Before joining the University of Michigan in 1946, Dr. Likert served in a variety of positions, including director of research for the Life Insurance Agency Management Association and director of program surveys for the Department of Agriculture, and had similar responsibilities for the Office of Price Administration and the Office of War Information. Later he served as director of the Morale Division of the Post World War II U.S. Strategic Bombing Survey.

In 1946, he became Director of the Survey Research Center at the University of Michigan. When that center and the Research Center for Group Dynamics were joined in July 1948, he was made Director of the combined organization, the Institute for Social Research. Upon his retirement from the Institute in 1970 he, with a group of colleagues, established Rensis Likert Associates, Inc.

Dr. Likert's books have included The Human Organization: Its Management and Value *(1967) and* New Patterns of Management, *which received several awards as the best book on organization and management in 1962.*

Dr. Likert is the recipient of numerous awards and honorary degrees, including the Society for Personnel Administration's Stockberger Award in 1963, the Human Relations Award of the Society for Advancement of Management in 1968, and the American Association for Public Opinion Research Award in 1973.

I am pleased to introduce Dr. Rensis Likert, board chairman of Likert Associates, who will speak on "Serving the Public Well"—certainly one of the important goals we all share in GAO.

Dr. Likert has had a distinguished career as a social psychologist, with a special interest in recent years in the direction of research in organizational theory and management practice.

For more than 20 years he headed the Institute for Social Research of the University of Michigan. Under his direction the Institute became the largest social science research institute in any university in the United States. Its research programs under his leadership added new knowledge in such fields as organization performance and organizational change; consumer motivation and economic behavior; juvenile delinquency, youth, and family life; political motivation and behavior; industrial mental health; communications; group behavior and performance; and community leadership. In all of these areas his efforts have resulted in what I have characterized as a kind of quiet revolution in modern management theory and practice.

In 1970 Dr. Likert retired as Director of the Institute for Social Research and, with a group of colleagues, established Rensis Likert Associates, which provides professional services in the field of organizational development by applying tested behavioral science concepts to the needs of business, professional, educational, and other public-interest organizations.

Rensis Likert Associates is currently working with our International Division on a program designed to identify and implement organizational management improvements.

—Comptroller General

Serving the Public Well

Dr. Rensis Likert

I would like to raise a question: Is it feasible, without any change in technology, to help Federal agencies improve their performance and decrease their costs? I believe that the answer is "yes" and shall present evidence to support my view.

This improvement can be brought about by helping Federal agencies use an appreciably more effective system of management than most agencies now use. This system of management is available and I believe is fully applicable to governmental operation.

This more effective system of management is based on extensive studies of the way the highest producing managers in American business and government manage in comparison with average managers. Incidentally, studies done in Europe, Asia, and South America confirm that this system of management is equally effective in achieving superior performance in these nations. There also is some evidence that this is the case in the communist countries as well. Tens of millions of dollars have been spent on these studies in the United States over the past 25 years. The Institute for Social Research alone has spent over $15 million.

Highest Producing Managers Use Same Basic Principles

The research has revealed that high producing managers are using essentially the same basic *principles* for managing the human component of their organizations irrespective of the kind of work being done by the persons they supervise. This does not mean that the managers' behavior is the same and that they are using the same procedures in all situations. They are not. In each situation these high producing managers are applying the basic principles in ways that appropriately fit the traditions, culture, expectations, and skills of the work force involved. For example, the way they supervise a clerical force is different in terms of the language and specific techniques used from the way high producing managers manage an R&D staff or a right-of-way maintenance crew on a railroad. But the same basic *principles* are applied in each instance.

These Principles Can Be Integrated Into A Superior Management System: System 4

We have found that these principles used by high-producing managers can be integrated into a system of management. This system, compared with the management systems used by most managers and administrators, is more complex and more socially evolved. If you examine the history of organizational concepts, you would extrapolate from the developments that have occurred over the centuries the kind of management system that we now have been able to describe based on the principles that

the highest producing managers use. For easy reference to it, we have labeled this system of management "System 4."

This system of management is appreciably more effective and productive than the average. In situations where productivity can be measured with reasonable accuracy, System 4 is found typically to yield 20 to 40 percent greater productivity than that achieved by average managers. System 4 also yields substantially better quality, better labor relations, better employee satisfaction, and better employee health—both physical and mental. In other words, if you wish to decrease cardiac arrests, hypertension, high blood pressure, ulcers, and similar disturbances among the employees of an organization, move the management system being used by that organization to System 4.

We find that, when we aid an organization, through an organizational improvement program, to shift its management system toward System 4, the organization experiences a corresponding improvement in productivity, quality, labor relations, and employee satisfaction.

Better Management Systems Have Evolved Over Time

As background for a description of the nature of System 4 let us examine one important forward step in the development of more effective systems of management, namely, the reorganization of the Jewish people under Moses. Ernest Dale describes this event as follows:

> When Jethro saw that Moses 'stood by the people from morning unto evening,' he said:
>
> "The thing that thou doest is too heavy for thee . . . thou and thy people will surely wear away."
>
> Moses, as leader, had all the departments reporting to him. Figure 1 shows the structure . . . Organization counsel, in the person of Jethro, prescribed the remedy. Figure 2, straight from the Bible, shows the new organization he devised . . . Moses no longer needed to settle all the details himself; he was provided with staff assistance. This is the earliest example of a general staff.[1]

And, as you will also notice in figure 2, the span of control was reduced to a manageable number.

This shift under Moses, to an organization in which designated persons had clearly defined responsibilities, was a major step forward. It was a shift upward along the Y axis in figure 3 from System 0 to System 1.

Next, in the social evolution of management systems, were gradual changes in the nature of the motivational forces that organizations relied on to cause their members to behave in ways that would accomplish the organization's goals. These changes are shown in figure 3 by movement along the X axis. Under Mosaic law it was "An eye for an eye and a tooth for a tooth." This was a cruel, punitive system, System 1. This system was prevalent in primitive societies, feudal states, and many firms in the early days of the industrial revolution.

Gradually, System 1's punitive, exploitative authoritarianism was replaced by a more benevolent form of authoritarianism, namely, System 2. This change represented a shift to the right along the X axis as shown in figure 3. System 2 is still authoritarian. Decisions are made at the top and orders are issued. Tight control is maintained from the top down and rewards and punishment are used. But System 2 is less punitive than System 1 and typically achieves higher productivity and better performance than does System 1.

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[1] Ernest Dale, *Organization . . . An Illustrated Outline,* copyright 1960 by Ernest Dale. Reprinted by permission of the author.

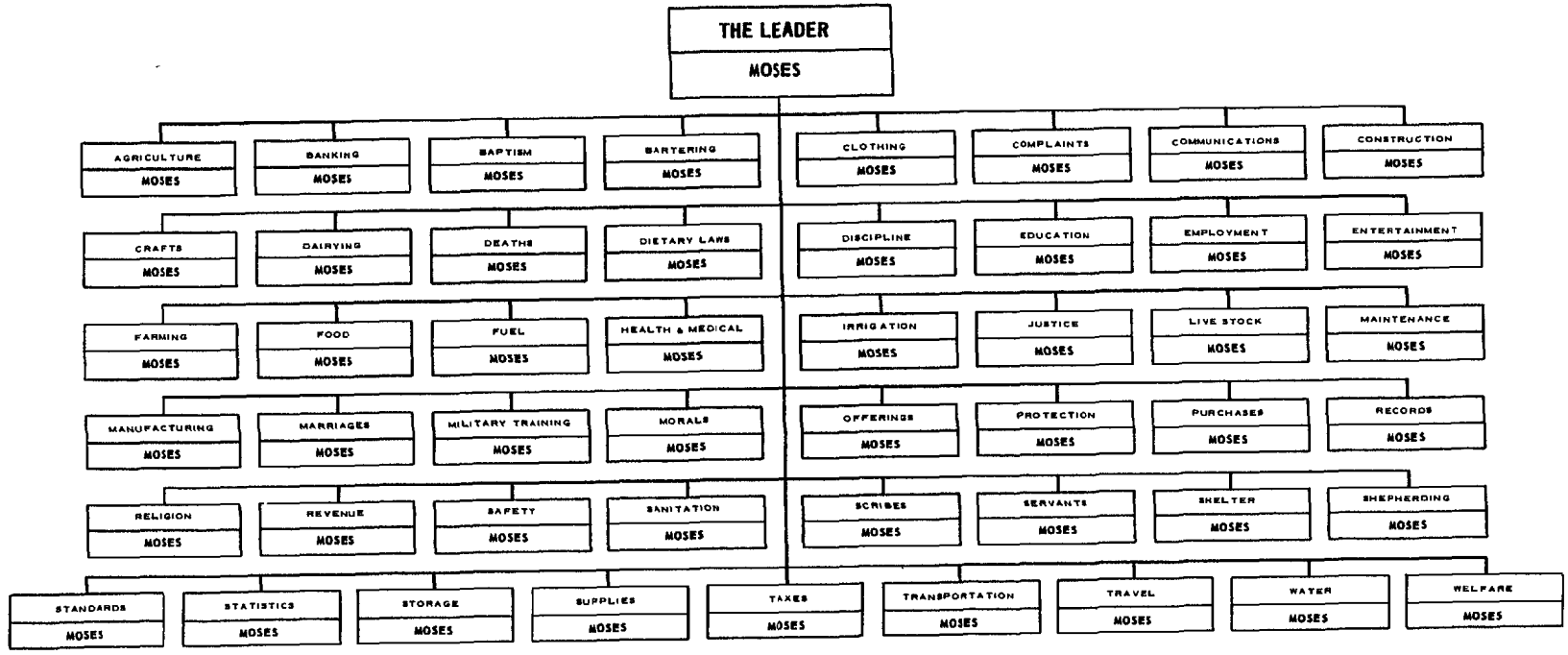
THE LEADER
MOSES
AGRICULTURE
MOSES
BANKING
MOSES
BAPTISM
MOSES
BARTERING
MOSES
CLOTHING
MOSES
COMPLAINTS
MOSES
COMMUNICATIONS
MOSES
CONSTRUCTION
MOSES
CRAFTS
MOSES
DAIRYING
MOSES
DEATHS
MOSES
DIETARY LAWS
MOSES
DISCIPLINE
MOSES
EDUCATION
MOSES
EMPLOYMENT
MOSES
ENTERTAINMENT
MOSES
FARMING
MOSES
FOOD
MOSES
FUEL
MOSES
HEALTH & MEDICAL
MOSES
IRRIGATION
MOSES
JUSTICE
MOSES
LIVE STOCK
MOSES
MAINTENANCE
MOSES
MANUFACTURING
MOSES
MARRIAGES
MOSES
MILITARY TRAINING
MOSES
MORALS
MOSES
OFFERINGS
MOSES
PROTECTION
MOSES
PURCHASES
MOSES
RECORDS
MOSES
RELIGION
MOSES
REVENUE
MOSES
SAFETY
MOSES
SANITATION
MOSES
SCRIBES
MOSES
SERVANTS
MOSES
SHELTER
MOSES
SHEPHERDING
MOSES
STANDARDS
MOSES
STATISTICS
MOSES
STORAGE
MOSES
SUPPLIES
MOSES
TAXES
MOSES
TRANSPORTATION
MOSES
TRAVEL
MOSES
WATER
MOSES
WELFARE
MOSES

FIGURE 1

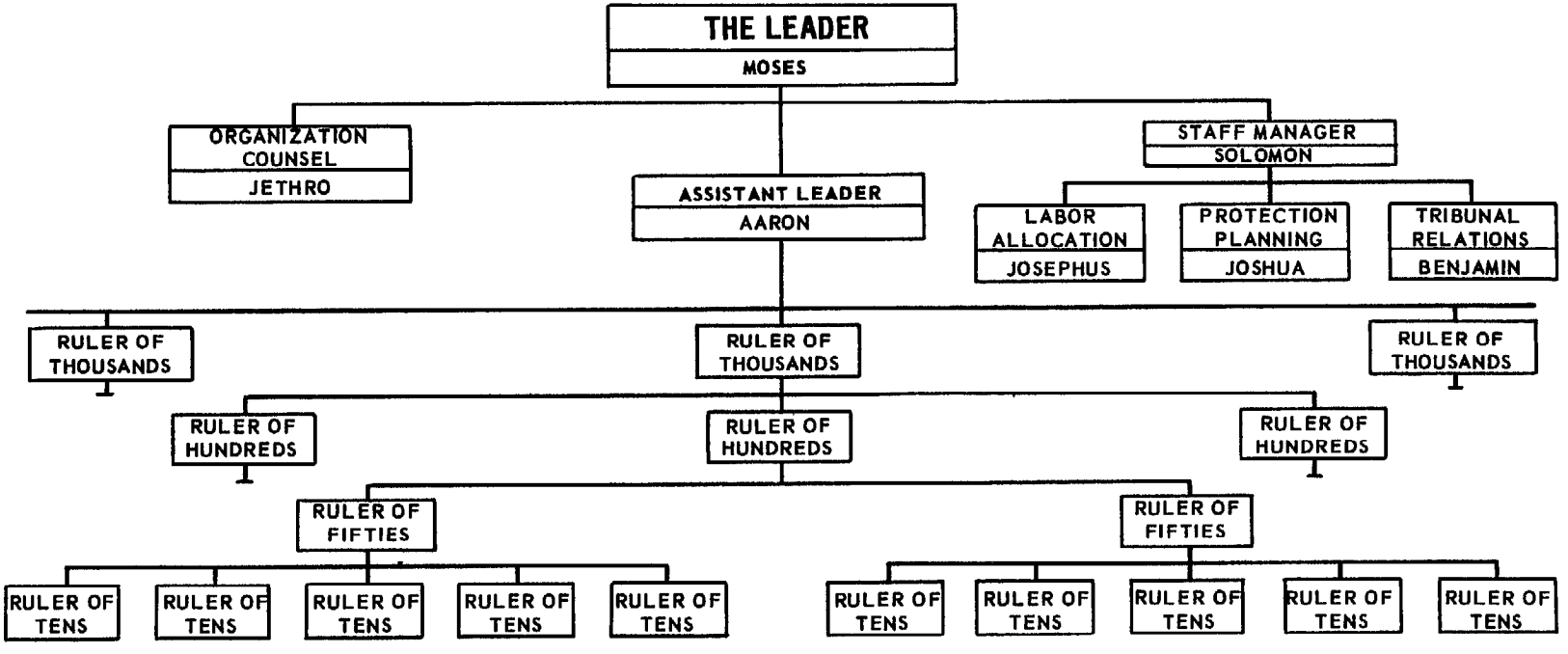
THE LEADER
MOSES
ORGANIZATION COUNSEL
JETHRO
ASSISTANT LEADER
AARON
STAFF MANAGER
SOLOMON
LABOR ALLOCATION
JOSEPHUS
PROTECTION PLANNING
JOSHUA
TRIBUNAL RELATIONS
BENJAMIN
RULER OF THOUSANDS
RULER OF THOUSANDS
RULER OF THOUSANDS
RULER OF HUNDREDS
RULER OF HUNDREDS
RULER OF HUNDREDS
RULER OF FIFTIES
RULER OF FIFTIES
RULER OF TENS
RULER OF TENS
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FIGURE 2

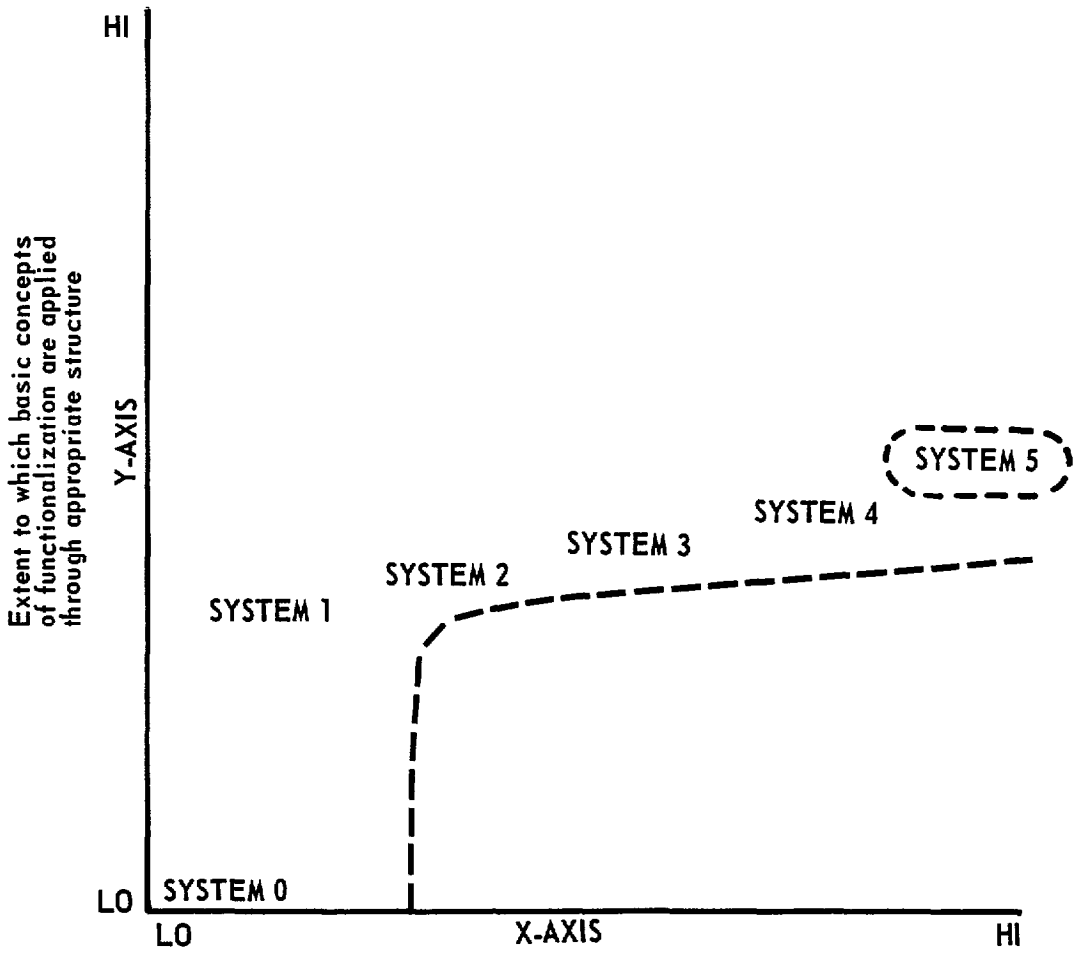


FIGURE 3

Schematic Location of Systems 0 to 4 in Relation to Degree of Functionalization and the Motivational Forces used

Much more recently consultative management, System 3, has emerged and now is used by many firms and governmental agencies. The System 3 manager asks his subordinates for their reactions, suggestions, and ideas and then he makes the decision. The subordinates do not participate in actually making the decision. System 3 represents further social evolution from System 2 and is a more sophisticated and effective management system.

System 4 is even more complex and effective than System 3 and represents further social evolution. System 4 is just now beginning to appear in the best managed, most successful units, departments, or firms in highly industrialized nations. It can be found also in some governmental agencies.

System 4 Uses Human Motives More Effectively

In modern industrial societies, where organizations and leaders do not have life and death control over their members and subordinates, System 1 makes the poorest use of available human motive forces. Systems 2 and 3 make progressively better use, and System 4 makes the best use. System 4 achieves higher levels of motivation directed to accomplishing the organization's goals than any other known system.

On the average, System 1 organizations are found to achieve the poorest performance, System 2 obtains better results than System 1—but not as good as System 3. System 4, as mentioned previously, achieves by far the best results in all respects. (See, for example, Likert, 1961 and 1967 and Taylor and Bowers, 1972.)[1]

It is not possible to state with confidence the management system being used by the average firm in the United States since there has not been a national survey made using a probability sample. Based on several hundred studies, however, the evidence indicates that American firms fall, on the average, at about System 2½ in the management system they use. This seems to be the case also for governmental agencies.

Virtually without exception, firms and governmental agencies are found to be closer to System 4 in their higher echelons and closer to System 1 in their lowest echelons. There is usually a step-by-step progression toward System 1 in the management system used as one moves down the hierarchy.

System 5 is tentatively shown in figure 3 as a system that will make still better use of human motives than can System 4. It has not yet emerged as a system of management, although there are scattered clues in business organizations suggesting its nature. I feel confident that social science research will accelerate the development of System 5 and that within less than a decade we will be able to describe its essential characteristics with reasonable clarity. It will prove to be an even more productive system than System 4.

The Nature of Systems 1 to 4

The nature of Systems 1, 2, 3, and 4 can be described by a series of questionnaire items. I shall project transparency images and you can see the differences in the management systems by reading the alternative choices listed for each item. (These transparencies are figures 4a, 4b, and 4c.)

As you look at the questions and alternative answers in figures 4a, 4b, and 4c, you can gain a better understanding of the differences in the management systems by considering how Systems 1 to 4 differ in the extent to which persons:

[1] See pp. 87–88 for complete identification of these and similar references throughout this paper.

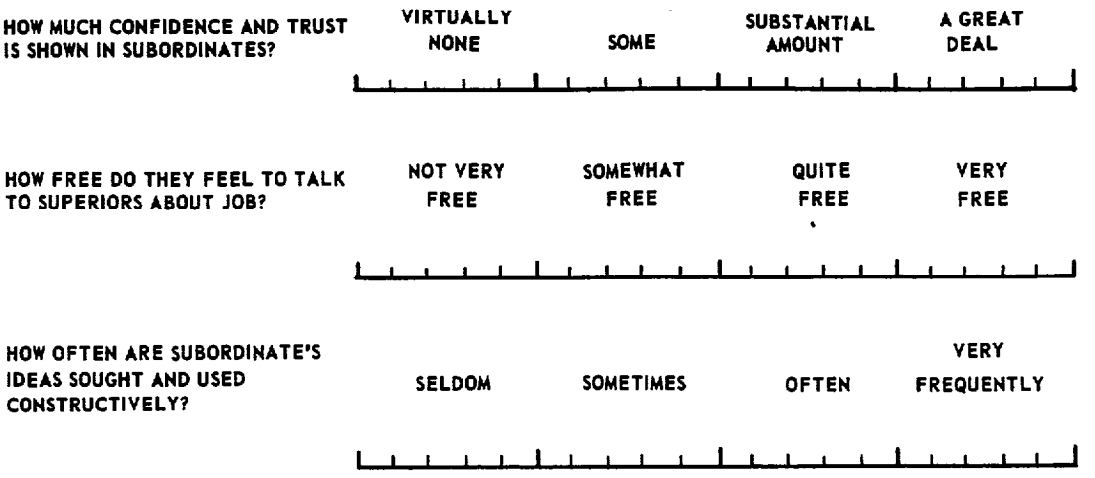


FIGURE 4a

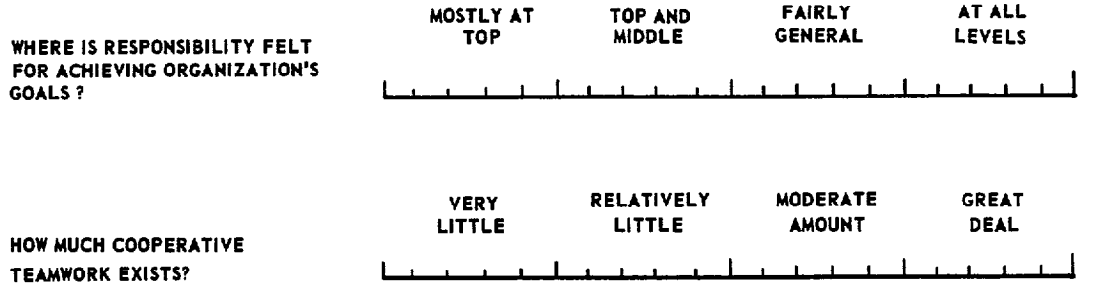


FIGURE 4b

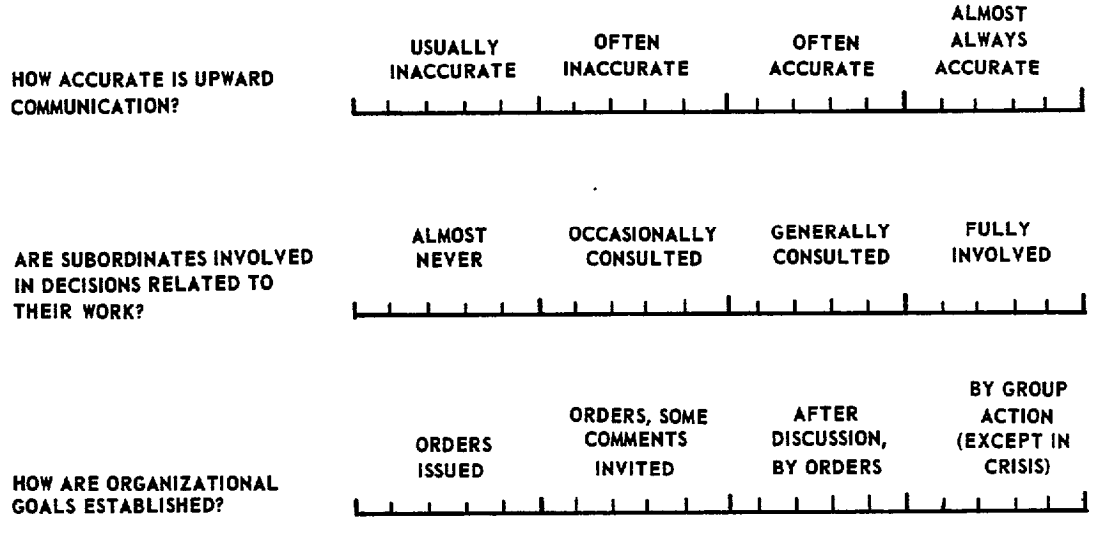


FIGURE 4c

—Are involved in decisions affecting them.
—Experience understanding and sympathetic support.
—Have their ideas sought and used.
—Are trusted and, in turn, display trust.
—Are highly motivated to achieve the organization's goals.
—Willingly cooperate with their colleagues to get the work done efficiently and well.

There is another important difference between System 4 and the other systems. In Systems 1, 2, and 3 the individual worker is the building block from which the organization is constructed and the interaction typically is between supervisors and individual subordinates. The interaction is person-to-person. With System 4, the small face-to-face work groups, i.e., the supervisor and his subordinates, are the blocks out of which the organization is built. The interaction in System 4 typically is between the supervisor and his subordinates as a group. Work problems are solved in group problemsolving sessions. System 4 organizations consist of highly effective teams of persons who know how to do their particular function well, cooperate well in doing it, are skilled in problemsolving, and are linked together by persons who are members of two groups. These persons who link two groups are called linking pins. They usually are the supervisor of the subordinate group and a subordinate member of the group at the next echelon.

System 4's Structure

In contrast to the usual organization chart which shows a series of lines connecting individuals only, a chart for a System 4 organization (figure 5) shows a

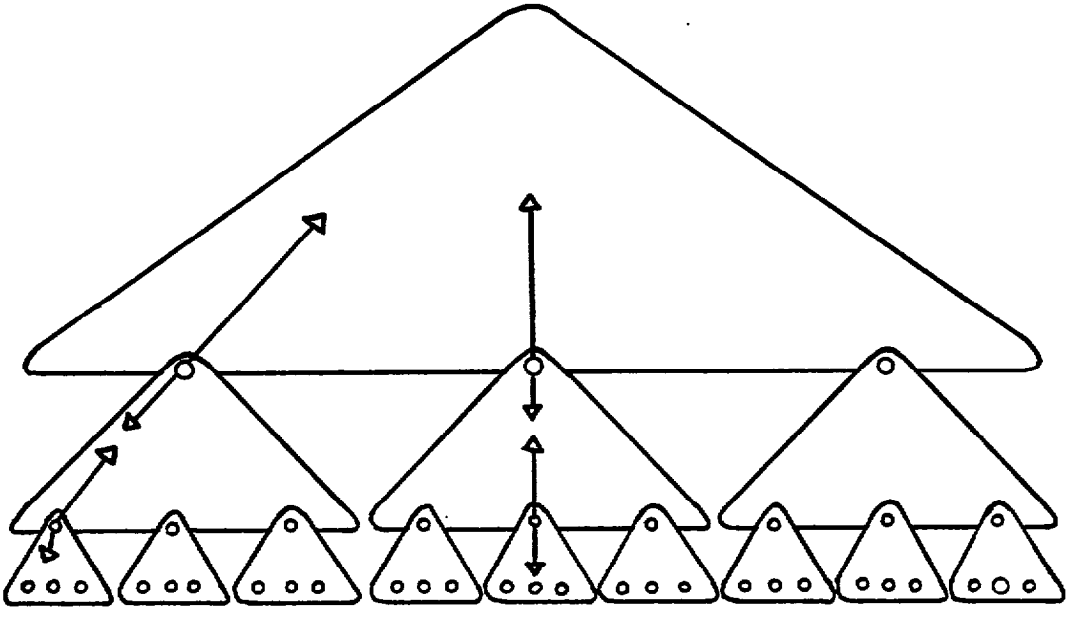


FIGURE 5
THE LINKING PIN

series of small groups linked together by linking pins.

The linked, overlapping groups of System 4 provide far more effective communication than occurs in person-to-person interaction in the other systems. There is a substantial body of research findings that shows that communication within and through highly cohesive groups is much more accurate and complete than when the communication depends upon person-to-person interaction. As a result, upward communication in System 4 organizations is found to be much more adequate and accurate than in organizations with other systems of management (Taylor and Bowers, 1972).

This full, accurate upward communication means that, in System 4, organizations' problems that exist at lower levels are readily surfaced for attention and solving. Top management is not kept in a state of dangerously blissful ignorance.

If the problems surfaced affect only one work group, that work group takes care of the problem. If the problem affects many work groups, the problem goes for solution to the hierarchical level that will encompass all affected groups. Every group within that structure will be involved in the problemsolving process through the linking structure. The decisionmaking goes up and down across the hierarchical levels through the linked groups in an orderly way and enables all concerned persons to be heard and to exert an influence.

Coordination Through Lateral Linkages

In addition to providing coordination through vertical linking such as shown in figure 5, linking pins can be used in a System 4 structure to provide lateral—or horizontal—linkage and coordination. When, for example, it is desirable to coordinate the efforts of a number of functional departments, such as R&D, engineering, manufacturing, sales, personnel, and accounting at the local plant level as well as at the divisional and corporate levels, cross-functional linkage can be provided by creating linking groups consisting of a linking pin from each functional department.

These cross-functional teams can achieve efficient coordination by solving problems at their level. When such coordination occurs, interdepartmental conflicts do not continue to smolder, bringing adverse effects on efficient performance. Moreover, departmental personnel at lower echelons do not engage in wasteful, time-consuming appeals through their respective departmental channels for decisions favorable to them. There is no need to carry these conflicts to top management for resolution.

This cross-functional linking structure, of course, is fully applicable to the problem of coordination and conflict resolution at various geographical levels whenever an agency is organized on a geographic basis as are many Federal agencies.

The use of cross-functional teams to reduce conflict and improve coordination and efficient performance is made possible by an important characteristic of System 4, namely, its use of group problemsolving. This problemsolving mechanism enables the horizontal line (cross-functional teams) and the vertical functional departmental lines to resolve conflicts between the departments in a mutually acceptable fashion. This occurs because the group problemsolving occurs simultaneously in a coordinated manner in both the vertical and horizontal lines.[1]

[1] This capacity of System 4 to resolve conflicts successfully between the horizontal and vertical lines is discussed in detail in Likert and Likert, 1975. The linked group problem solving process is also described fully in that volume.

The items in figures 4a, b, and c reveal some of the characteristics of System 4 leadership. Five key dimensions can be used to describe it; namely, System 4 managers in their leadership behavior:

1. Are supportive.
2. Engage in team building.
3. Help with work.
4. Hold high performance, no-nonsense goals.
5. Possess adequate technical competence.

Supportive behavior is displayed in many ways, such as:

—Being friendly and approachable.

—Being easy to talk to.

—Listening attentively and carefully.

—Believing in people.

—Displaying confidence and trust.

—Asking subordinates for ideas and suggestions and making use of them.

—Being interested in subordinates' careers and development and aiding them to be promoted.

—Nurturing egos rather than deflating them.

In building subordinates into a team, the supervisor encourages cooperation and teamwork among them. He does not pit subordinate against subordinate in competitive relationships. He uses group problemsolving of work-related problems and in doing so seeks to build his subordinates into a cohesive group with high group loyalty, excellent problem-solving skills, and high performance goals.

A third characteristic of System 4 leadership is work facilitation or help with work. The System 4 leader does this by seeing that his subordinates have adequate training and skills and are provided with the tools, equipment, and raw material that they need. He sees to it that the equipment and tools are well maintained and that the raw material is in satisfactory condition. He seeks to use the best and most sophisticated technology and equipment. He plans well and with adequate leadtime and shares his planning with his subordinates so that they, in turn, can plan their tasks efficiently and have all the plans fit together harmoniously.

A fourth characteristic of the System 4 leader is that he has high performance, no-nonsense goals. He expects much of himself and much of each of his subordinates. He holds goals for them that stretch and challenge each of them but not so high as to break or discourage them. He helps them to recognize the importance of their mission and the need, consequently, for high performance goals. He encourages his subordinates to take pride in their organization and in the outstanding performance it achieves.

The high-performing System 4 manager displays another characteristic that is required for him to give subordinates help with their work, namely, he has adequate technical competence for the kind of work he is doing. He has adequate technical competence in administration to perform his managerial functions well. He is also technically competent in the field in which he is working, such as R&D, production, financial, or other kind of activity.

As might be expected, all of these characteristics of System 4 managers show a marked relationship to the level of organizational performance. In a large number of studies involving many thousands of employees, sizable positive correlations are found typically between scores on these leadership characteristics and performance. For example, the higher a manager's score is on supportive

behavior, the better is the performance achieved by his organizational unit.

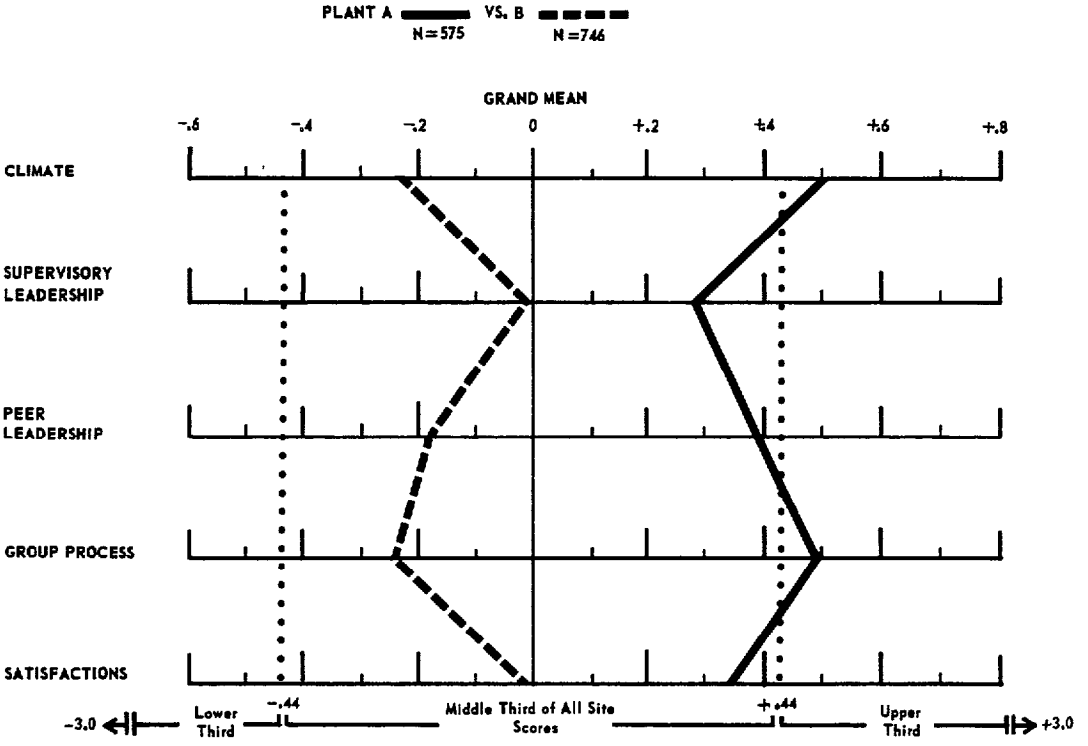
System 4's Greater Productivity

A substantial and steadily increasing body of findings demonstrate the capacity of System 4 to achieve better than average performance. (See, e.g., Jerovsek, Mozina, Tannenbaum and Likert, 1970; Likert, 1961 and 1967; Likert and Likert, 1975; Roberts, Miles and Blankenship, 1968; Seashore and Bowers, 1970; Taylor and Bowers, 1972.) The findings from a few recent studies will be cited as examples of the results now being obtained.

The first study reports findings from two automotive assembly plants. I am using these examples because their productivity data are more accurate than are obtained in most situations. In 1969, when the first measurements were made, one plant was the highest producing assembly plant in a large automotive corporation and the other was the lowest in terms of quality, cost, and labor relations. They both happened to be in the same labor market, both in the same city, so differences in results cannot be attributed to differences in the character of the labor force. Moreover, the technology is the same so the differences in performance can be reasonably attributed to differences in the plants' management.

In October 1969, we obtained measurements showing how all the salaried employees in these two plants perceived their management and reacted to it. The vast majority of these salaried persons were in supervisory and managerial positions. Figure 6 shows these results for a few key indexes. As will be observed,

PROFILES FOR ALL SALARIED EMPLOYEES OF A HIGH VS. LOW PRODUCING ASSEMBLY PLANT



(In standard scores compared with Institute for Social Research Intercompany Longitudinal Study Grand Mean)

FIGURE 6

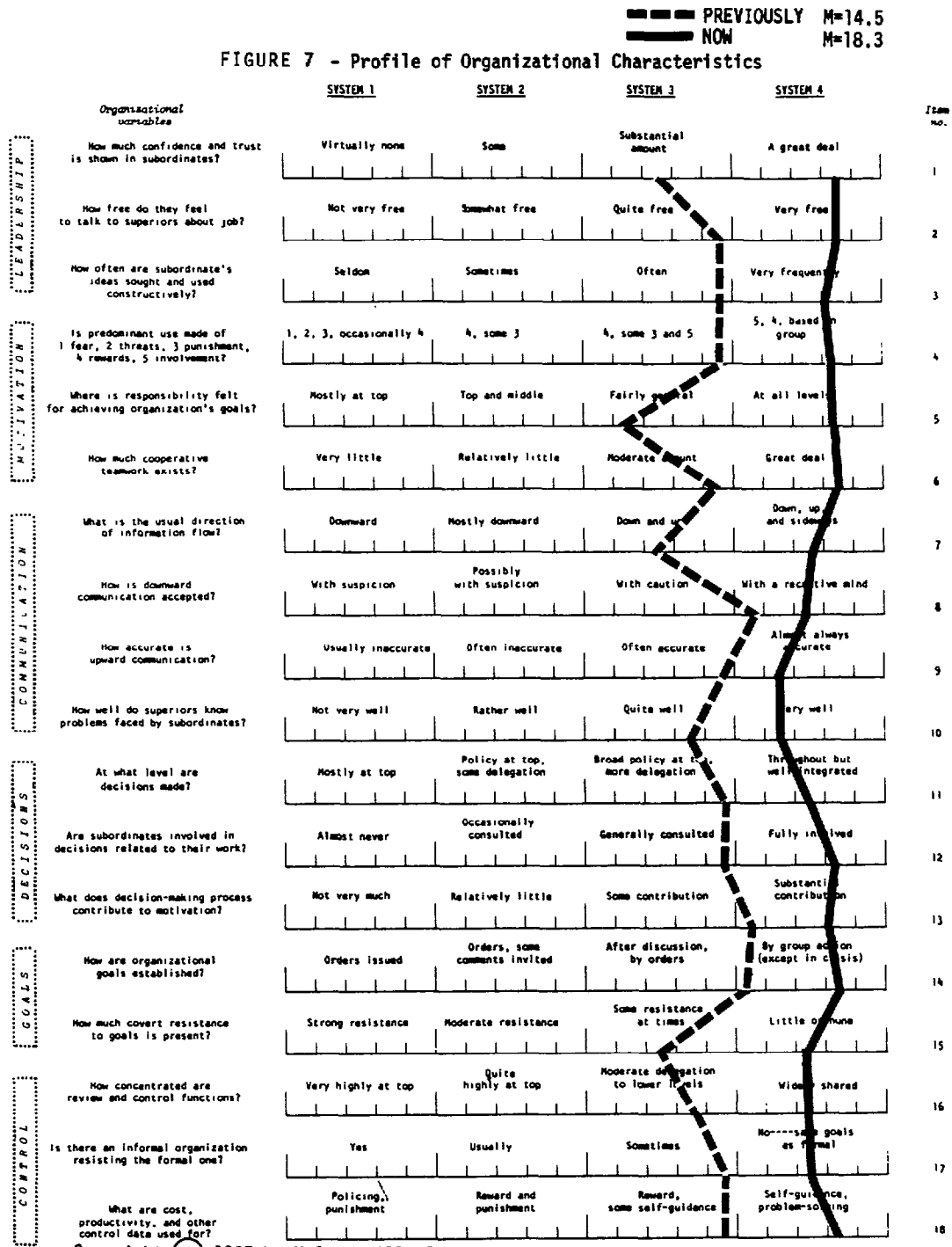


FIGURE 7 - Profile of Organizational Characteristics

Plant A, the highest producing, lowest cost plant, has a much more favorable profile than does Plant B, the lowest producing, highest cost plant.

Just after we obtained these measurements, the president of the corporation asked if shifting the manager of the high producing plant to become the plant manager of the poor producing plant would cause any difficulty in carrying out the plans in the two plants for organizational improvement. When assured that this shift would have advantages rather than disadvantages for the project, the change was made. We knew from our data that this high producing manager was employing the kinds of principles (System 4) that our organizational theory indicated would yield the best performance. We felt that our measurements and organizational model could help this manager achieve more rapidly sizable improvement in this poor plant after he took it over.

Figure 7 shows the kind of management this manager was seen to be providing to the high producing plant prior to his transfer. These data are based on the perceptions of the top 52 managers in that plant. As the profile for his current (now) behavior shows, he is seen to be a System 4 manager.

This manager made extremely good use of our survey measurements when he took over as plant manager of the poor plant. The data helped him to understand his problems and how best to proceed. He saw to it that his managers and supervisors were aided by the survey feedback organizational improvement process and coaching.[1] As figure 8 shows, he made unusually rapid progress in bringing about substantial improvement in the human organization and its productive capability, as reflected in our measurements of the human organization. From December 1969 to August of 1970 he had moved the human organization scores for salaried employees about one-half of the distance from the poorest to the best plant.

The data in figure 9 show a typical pattern: improvement in productivity and costs lags in time substantially behind improvement in the human organization. Even though the human organization scores (figure 9) showed a sizable improvement by the end of the 1970 model year, i.e., by August 1970, both direct and indirect labor costs *continued to deteriorate rather than to improve.* Costs were getting worse even though there was an improvement in the human organization. This deterioration continued for 1 more year for indirect labor costs. Direct labor efficiency showed a sizable improvement in the 1971 model year and continued this trend in the 1972 year. Indirect labor efficiencies, however, did not improve until the 1972 model year when a sizable improvement occurred.

Figure 10 shows some of the improvement attained by the 1972 model year. The improvement in labor efficiency alone represents an annual savings in excess of $5,000,000. In addition, there were various other cost savings, such as a reduction in tool breakage and an improvement in quality. There was also a sizable improvement in employee satisfaction which has been found to be associated with employee health, both physical and mental.

The results in the last five figures, and especially figure 9, have important implications for GAO. These results show that it is possible to measure those key dimensions of the human component of an organization that indicate the probable level at which that organization will perform over the next few years unless some intervening factors change that hu-

[1] For descriptions of the survey feedback method see Bowers, 1973a; Bowers and Franklin, 1972; Mann, 1957; R.L.A., Inc., 1971; Waters, 1968.

IMPROVEMENT IN HUMAN ORGANIZATION SCORES OF POOR PRODUCING PLANT
AS SEEN BY SALARIED EMPLOYEES

PLANT A ——— N = 575 VS. B - - - - N = 746

(Compared with Institute for Social Research Intercompany Longitudinal Grand Mean)

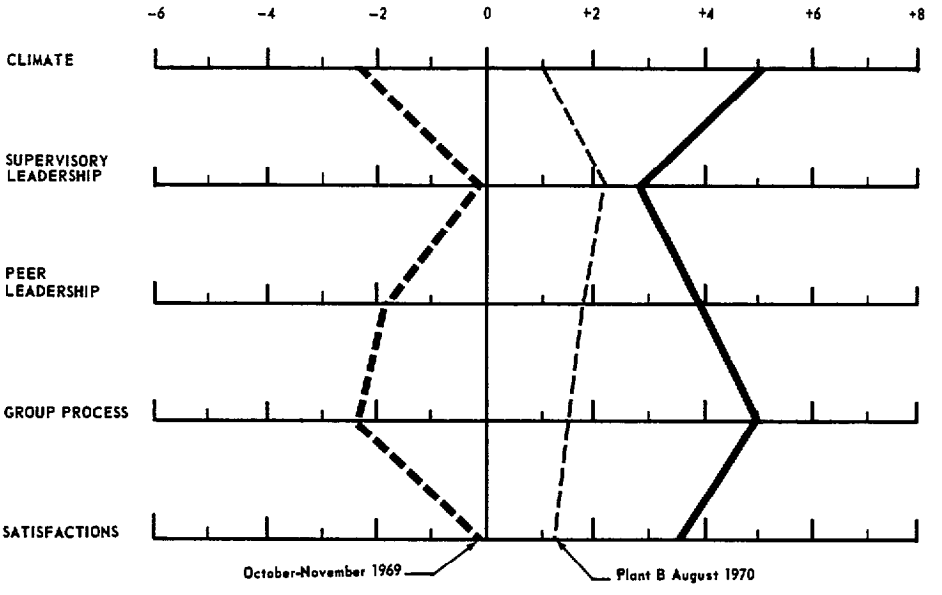


FIGURE 8

PERCENT OF CHANGE IN OPERATING EFFICIENCY
AT AN ASSEMBLY PLANT (Plant B)

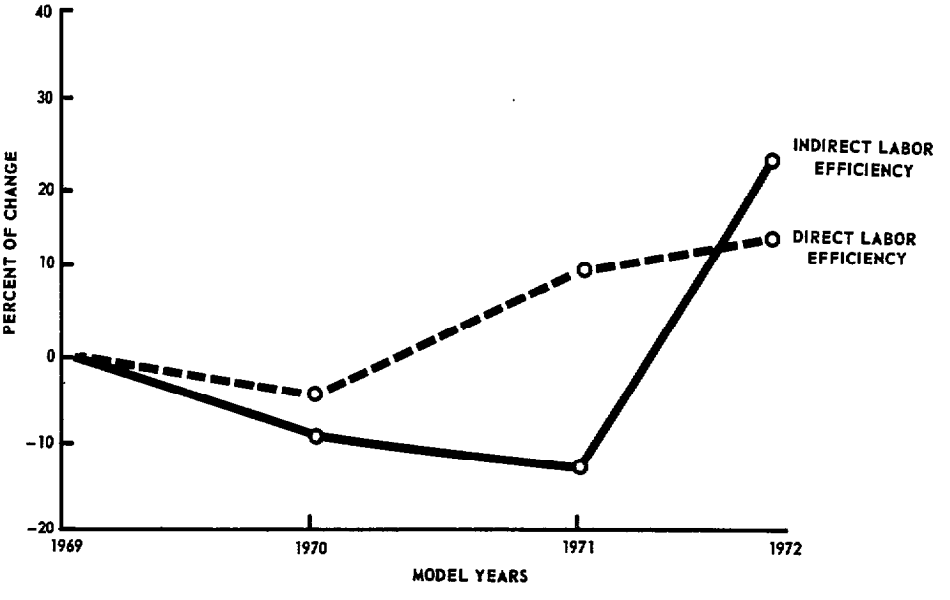


FIGURE 9

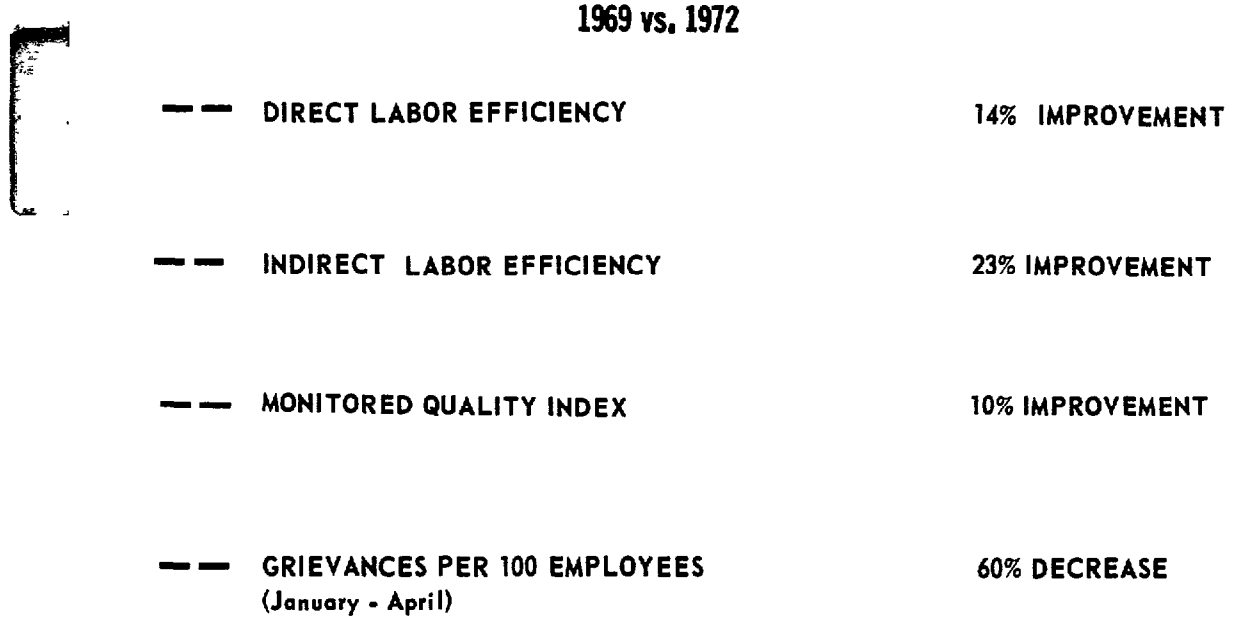


FIGURE 10

man component. This means, of course, that when the measurements reveal that there has been an improvement in the human component, one can correctly predict that there will be an improvement in performance by that organization corresponding to the improvement in the key dimensions of the human component. If, on the other hand, there has been an adverse shift in the human component key dimensions, one can predict that there will be a corresponding unfavorable shift in performance unless remedial steps are taken promptly.

It is reasonable to assume that these findings apply to governmental agencies since human beings are involved and much of the work is essentially the same or very similar to work in business. Nevertheless, it would be desirable to do enough research to establish the fact that the findings from business are equally applicable to government. This research remains to be done but the findings from the limited number of studies that have been made indicate that the results from business appear applicable to government. Some of these findings will be presented briefly.

One of these studies was done in the "0" area of the Department of State. The "0" area provides administrative services to the rest of the Department and also to agencies outside of the Department that are engaged in foreign affairs activities, such as the Peace Corps. A study of the administration and performance of the "0" area revealed that organizational units whose administration was of a System 4 nature, or approached it, yielded better service than those whose management was System 1 or 2 in character. That is, organizational units that were providing the best service had administration more toward System 4; those providing the poorest service had administration more toward System 1. This relationship was found to exist both for service provided to offices and units within the Department, and for service

provided to agencies external to the Department (Warwick *et al.*, 1975).

An earlier unpublished study in the Department of Labor by Floyd Mann and Frank Neff of the Institute for Social Research yielded the same general pattern of findings as that found in the Department of State study.

In a study of 35 matched pairs of Air Force ROTC units in universities or colleges, Dewey Johnson found a significant relationship between the management system that the head of the unit claimed he used and the area commandant's rating of the performance of the unit. The units whose performance was judged to be higher by the area commandants were headed by professors of aerospace studies who rated their behavior as being closer to System 4 than the professors who headed units judged to be poorer (Dewey E. Johnson, 1969).

A study done at Maxwell Field obtained data on the management system now being used by the Air Force as seen by its officers. Information was also ob-

FIGURE 11

INSTRUCTIONS GIVEN TO RESPONDENTS INSTEAD OF INSTRUCTIONS ON FORM S

Organizational Characteristics Survey

The Air Force today is vitally interested in the quality of the management of its resources. One important aspect of this concern is how today's management styles affect our people, and what style of management is needed for the future.

You were selected as a part of a random sample of 6,000 active duty Air Force officers who are being surveyed to establish a reliable base for our study. This questionnaire was developed for describing the management system or styles used in United States Air Force organizations. In completing the questionnaire, it is important that you answer each question as thoughtfully and frankly as possible. This is not a test; there are no right or wrong answers. The important thing is that you answer each question *the way you see things now* and *the way you feel they should be.*

INSTRUCTIONS

1. Above the line for each organizational variable (item), place an X at the point which, *in your experience,* describes your organization at the present time. In marking your choice, consider only the management styles of managers other than yourself. *Do not* reflect your management style. Treat each item as a continuous variable from the extreme at one end to that at the other.

2. In addition, below the line for each organizational variable (item), place an X at the point corresponding to the organizational variable where you would like to have your organization fall with regard to that variable. Again, treat each item as a continuous variable from the extreme at one end to that at the other.

3. Your answers will be used for official purposes only and will not be released except as statistical data. No information will be released which would connect you with your responses to this survey. Before returning the questionnaire, please check to see that all questions have been answered.

tained on what they would like the management system to be. Questionnaires were completed by a representative sample of 3,233 Air Force officers of all levels and all commands. Questionnaires had been sent in June 1970 to a random sample of 5,357 officers so the returns represented a 60 percent response rate.

The instructions used with the questionnaire are shown in figure 11. The questionnaire itself was the same as that in figure 7. The results are shown in figure 12. As will be observed, the profile showing the management system now being used by the U.S. Air Force falls in the System 3 range. The profile that shows what the officers would like it to be *(future)* falls into the System 4 range. The average (mean) score for all items on the *now* profile is 60.5; for the *future,* 84.1 (total range used = 100).

The same pattern between the *now* and the *future* profiles exists for all age groups, years of service, sex, rank, and education. The analysis by rank revealed a pattern found in most organizations, namely, the higher the officer's rank, the closer to System 4 the officer sees the management system of the Air Force. Each rank also wants the management system to be closer to System 4 in the future. The mean *now* scores and the mean *future* scores for each rank are progressively higher for higher ranks. General officers see the Air Force management system as now being in the System 4 range, but want it to have an even higher System 4 score in the future.

Research findings show that, whenever an organization modifies its management system to approach more closely what the organization's members would like it to be, an improvement in performance and other results occur. If one accepts this finding, then the data from Air Force officers indicates that a shift toward System 4 would improve performance and other results in the U.S. Air Force.

Bowers has made an extensive study of factors affecting the reenlistment intentions of first-term enlisted men in the Navy. He obtained a representative sample of 2,522 persons from 38 different Navy sites, including both ship and shore stations. Among other things, he found a marked relationship between the kind of management system that the person experienced in the Navy and the intention to reenlist. Those persons who had experienced management systems, leadership, and organizational climates closer to System 4 had much greater intentions to reenlist than those who had experienced environments more like System 1 (Bowers, 1973b).

Bowers' study adds further evidence that System 4 management, and management systems approaching System 4, yield greater commitment to an organization and the achievement of its objectives than do management systems that are more like System 1.

The evidence from the few studies that have been made indicates that System 4 is as effective in Federal agencies in achieving superior performance as it is in business organizations. Let's for the moment assume that System 4 is as effective in government as elsewhere, that the key dimensions of the human component of an organization are the same, and that the relationships between the key dimensions of the human component and the organization's performance are the same. (I will discuss shortly the research that should be done to test these assumptions.)

If we make these assumptions, then GAO and other Federal agencies have tools and resources available to them to assist agencies to improve their performance and reduce their costs. If shifting from System 2½ to System 4 can enable an organization to improve productivity by 20 percent to 40 percent in the pri-

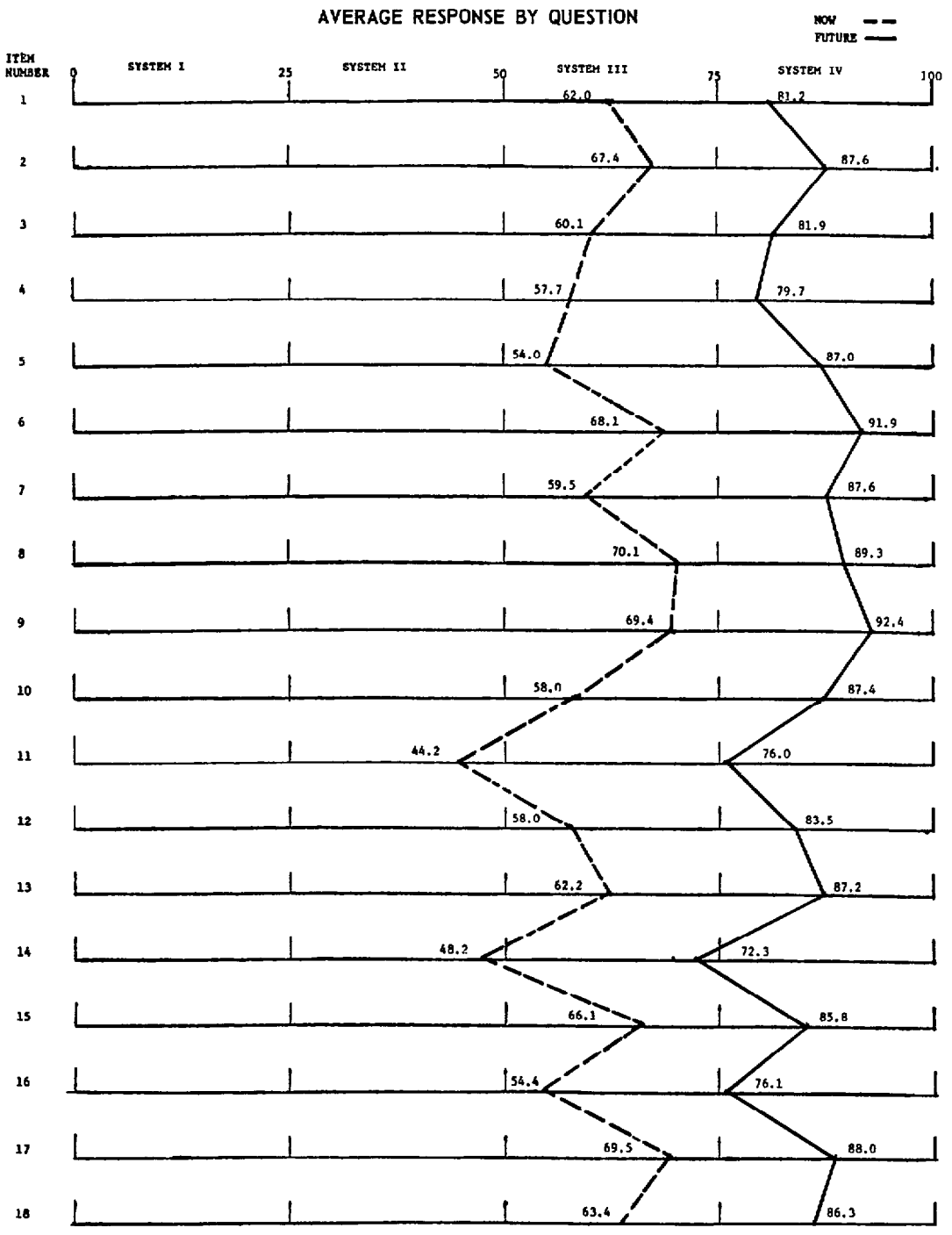

AVERAGE RESPONSE BY QUESTION
NOW
FUTURE
ITEM NUMBER
0
SYSTEM I
25
SYSTEM II
50
SYSTEM III
75
SYSTEM IV
100
1
62.0
81.2
2
67.4
87.6
3
60.1
81.9
4
57.7
79.7
5
54.0
87.0
6
68.1
91.9
7
59.5
87.6
8
70.1
89.3
9
69.4
92.4
10
58.0
87.4
11
44.2
76.0
12
58.0
83.5
13
62.2
87.2
14
48.2
72.3
15
66.1
85.8
16
54.4
76.1
17
69.5
88.0
18
63.4
86.3

FIGURE 12

vate sector, it is reasonable to expect comparable improvement in governmental agencies if a corresponding shift is made in their management systems.

Preventive Audits Are Feasible

Recently I interviewed several persons in the Honolulu office of the International Division of GAO. A bright GS–11 commented that management audits are of great value in aiding and encouraging an agency to improve its administration and resulting performance. He continued, however, by saying,

> It is too bad that we can't make preventive audits. We ought to help agencies detect problems before they cause the serious, costly consequences that we now catch in our audits. If we could just discover problems in their early stages and flag them, the agency could take remedial action and avoid the costly outcomes that now occur.

A sizable proportion of the problems with costly outcomes are those caused by poor management of the human component of an agency. The magnitude of these costly outcomes can now be substantially reduced. This is possible since the measurements of the key causal dimensions of the human component of an organization typically change ahead of the performance and other results (see figure 9). The human component measurements and changes in them, consequently, can reveal whether a particular situation is good, average, or poor, and whether the performance and other results caused by the human component are likely to improve, stay the same, or get worse. Moreover, the human component data reveal what needs to be done to bring about an improvement.

Where it is possible to obtain reasonably accurate measurements of productivity or relevant performance variables, we typically obtain correlations of +0.6 to +0.8 between the human component indexes and the performance data. This means that differences in the human component scores account for from 36 to 64 percent of the differences in performance. Relationships of these magnitudes warrant using human component scores for preventive audits.

The key dimensions of the human component of an organization can be described briefly. They consist of indexes, each based generally on a few of the items contained in a standardized questionnaire. Figure 13 shows the indexes that we, in Rensis Likert Associates, are providing organizations today. David Bowers in the Institute for Social Research is providing similar measurements to organizations. The organizational climate indexes reflect the psychological atmosphere present in the organization. They are influenced by the leadership behavior of the top management of the organization and the general policies that have been established. The organizational climate at lower echelons in an organization is influenced also by the leadership behavior of managers at higher echelons.

Managerial or supervisory leadership is measured by the four indexes shown in figure 13. I have described these four dimensions of leadership earlier in my presentation. Peer leadership is measured by indexes similar to the supervisor leadership indexes, but the questionnaire items are worded to deal with peers rather than with the supervisor.

Four indexes are used to measure how work groups in the organization are performing. Each of four different dimensions of satisfaction also are measured by an index, as shown in figure 13.

The Adverse Results of Typical Cost Reduction Programs

Many cost reduction programs in the Federal Government, as in business, that

ORGANIZATION SURVEY PROFILE

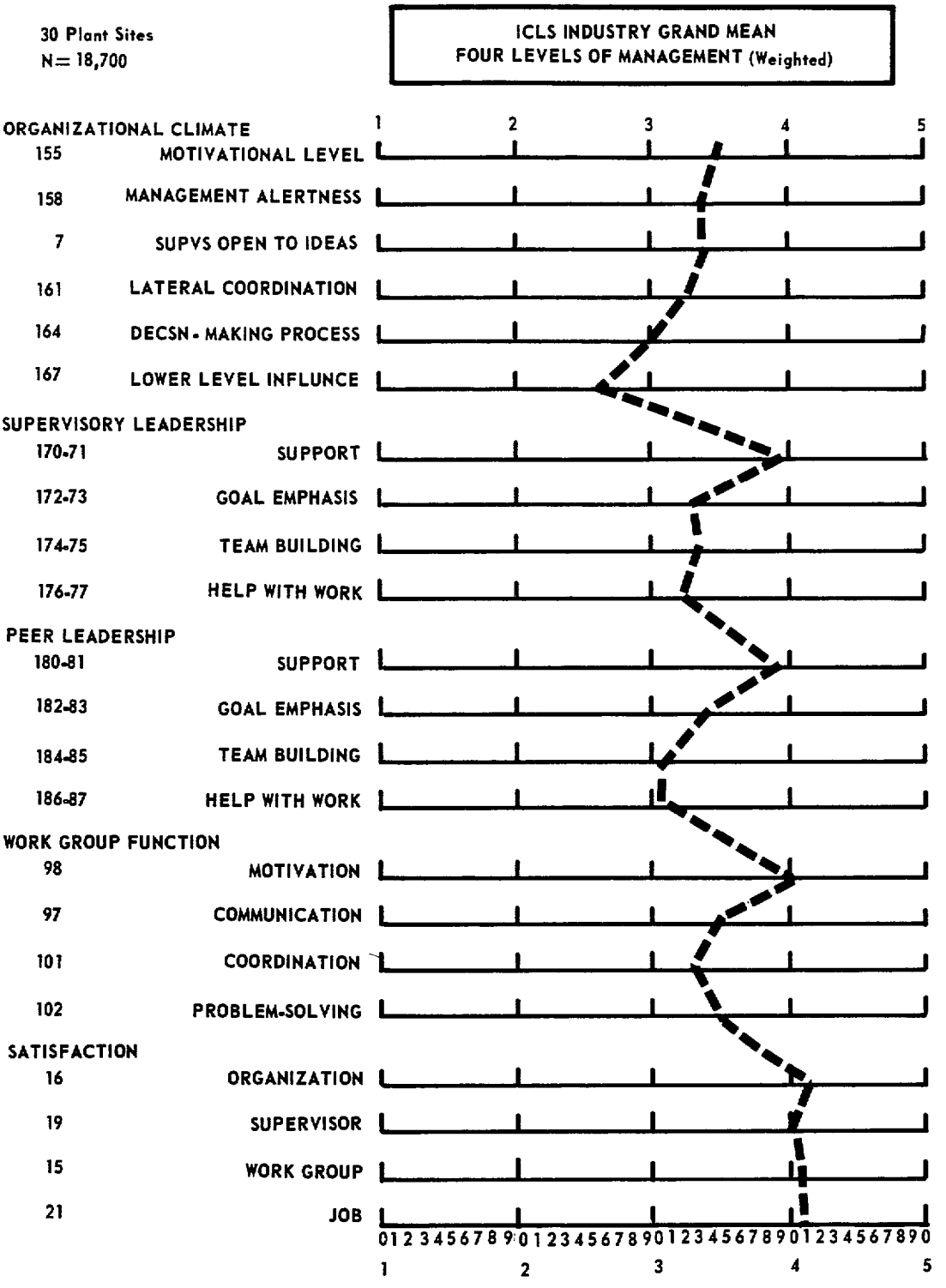


FIGURE 13

appear on the surface to be effective, are actually highly ineffective and costly when properly evaluated. A common cost reduction procedure is to measure the work being done and set standards. Often when this is done, it is found that the operation is overstaffed by something like 15 to 30 percent. Supervision is then ordered to reduce staff by the amount of overstaffing. This order is enforced by a reduction in budget or a reduction in personnel slots or ceilings or both. Sometimes agencies are compelled to achieve a cost reduction because of smaller appropriations and this typically is done with this same kind of enforced reduction in personnel and budget.

Frequently, when this kind of cost reduction is imposed on an agency or some portion of it, the affected organizational entity is expected to do the same work load as previously. When the cost reduction steps are imposed, the personnel affected resent it but carry on and try strenuously to get the work done. After a period of working under pressure, some of the staff usually decide this is not for them and seek work elsewhere. Typically those who find other jobs and leave are the most productive workers and, consequently, the most valuable. Those who remain take steps to protect themselves, such as vastly increasing grievances and electing union officers who are hostile to management, opinionated, and impossible for management to negotiate or bargain with. Wildcat strikes and legitimate work stoppages are likely to occur, as well as systematic restriction of production.

The initial response, then, to this kind of imposed cost reduction is to perform the work with fewer persons and less resources. This is viewed favorably as an increase in productivity and a savings in cost. The cost reduction program on the surface appears successful in achieving savings. The human component of the organization is not measured and the progressive deterioration in it and its productive capability that starts a few months after the cost reduction program was launched and continues for a few years or more, goes undetected until major and costly breakdowns occur in performance.

The cost of performance by this hostile, demoralized staff becomes excessive and the performance is poor. In addition, the cost of rebuilding this resentful staff into an efficient, highly productive human component of an organization is substantial. When accurately assessed these poor performance and rebuilding costs are found to be substantially greater than the cost savings achieved by the cost reduction program. When the total costs of the entire cost reduction program cycle are accurately computed, imposed cost reduction programs usually will be found to increase costs appreciably rather than yield cost savings (Likert, 1973).

It is, of course, very important for agencies to achieve cost savings and perform at highly efficient levels. Fortunately, there are procedures for aiding organizations to achieve better performance and cut their costs that improve the human component and its productive capacity rather than affecting them adversely. One of the most effective of these is the survey feedback method. With this method the human component is measured periodically, usually annually, and each supervisor receives a report showing his scores and profile (figure 13). He is given counseling and coaching in interpreting the data and improving his supervisory behavior. Other weaknesses in the human component also are dealt with constructively.[1] It is possible, consequently, to help agencies achieve low-cost, excellent performance by measuring the human component pe-

[1] For descriptions of the survey feedback method see Bowers, 1973a; Bowers and Franklin, 1972; Mann, 1957; RLA, Inc., 1971; Waters, 1968.

riodically and using the survey feedback method.

I should like to sound a note of caution. Undertaking complex processes, such as measuring the human component of an organization, making organizational diagnoses, and conducting organizational improvement efforts by means of the survey feedback method, requires competent, well-trained, and experienced personnel. Incompetent persons using these powerful instruments and procedures can do serious damage to an organization and to its personnel. Only persons who possess the required skills should use these tools.

There is another valuable use that can be made of measurements of the human component. In many Federal agencies it is impossible to measure productivity. In such situations, evidence of the caliber of management's performance can be obtained by measuring periodically the key dimensions of the human component. When these scores are favorable and reveal that the human component is highly motivated, committed, and has high performance goals, it is reasonable to assume that the management of the agency is doing an excellent job.

I hope that GAO will wish to draw upon measurements of the human component and the survey feedback method in its important work in aiding Federal agencies to perform efficiently.

If GAO wishes to use these resources, it obviously would be desirable for enough research to be done to test the validity of the three assumptions stated previously. Research to test the assumptions can be carried out readily in the Federal Government since many Federal operations offer excellent research sites. A desirable research site would contain units conducting identical, or virtually identical, operations and have excellent performance data. Examples of such sites are the local offices of the Social Security Administration and the Internal Revenue Service. Their regional offices also might be acceptable sites.

I am highly confident that measurements of the key dimensions of the human component of Federal agencies will show the same marked relationships to productivity and other performance and satisfaction results as are found in other organizations. It is desirable, however, to do sufficient research to demonstrate to the satisfaction of reasonable skeptics that these relationships exist. About 1 percent of the payroll of the organization studied usually will be adequate to finance this research.

If the results of such research confirm the assumptions, as I believe they will, it would seem desirable to consider designating a very small percent of the payroll in appropriation bills for measurement of the human component of the agency and for organizational improvement through the survey feedback and other appropriate methods. This should be done at first in only one, or a few, agencies at most, with highly competent, well-trained personnel to assure that the work is done well and that sizable cost savings are achieved. As these initial efforts succeed and additional persons with the needed skills become available, these activities should be spread gradually to all Federal agencies. Spending a small percent (e.g., 3 to 5 percent) of payroll to save 10 percent or more, while obtaining better performance, will save taxpayers money and serve them better.

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DISCUSSION

I'd like your comments on the relationships between persons' aspirations and career plans on the one hand, and the agency's requirements and demands on the other, and how these can or should fit together.

Dr. Likert: In a System 1 or 2 organization, your desires and needs are given little consideration by the organization. Higher authorities make the decisions. You are rotated or transferred, you are moved to a different location, you may or may not be sent to a training program at a university. All these and similar decisions are made for you and with little consideration of your preferences.

In a System 3 organization, you are consulted before these decisions are made and your desires are considered, but your boss or higher authority makes the decision.

In System 4, you, your boss, and your peers engage in planning, including career planning and training. Through the linking process, your boss—as the linking pin—carries your preferences and those of your peers to higher echelons for use in the planning at the higher levels. Through your boss, as the linking pin, you are kept informed and involved. This process yields decisions that achieve better integration of the needs and de-

sires of the individual members of the organization and the requirements of the organization.

How does an organization that operates primarily on a System 1 or 2 basis overcome bureaucratic obstacles in moving toward System 4?

Dr. Likert: It is particularly important, if possible, to have the full support of the top administrator. If the top administrator and key deputies support the move toward System 4, they create powerful forces in the organization to take action toward System 4, such as changing the reward system of the agency to provide incentives to move toward System 4. Salaries, promotions, status in the organization all change to support the desired shift. The organizational climate of the agency also becomes an important pervasive influence to move toward System 4. When these forces for change exist in an organization, the survey feedback method can become a highly effective procedure for facilitating the shift to System 4. All of the forces that I have mentioned, plus survey feedback, can be effective also in overcoming bureaucratic resistance by middle and lower level managers.

Progress can be made without support from the top by managers who wish to use System 4 or move toward it, but there is always the danger of being undercut by top management and experiencing a serious setback. When top management support is lacking, those middle managers who wish to use System 4 can build support for this change by informally cooperating in steps that will encourage a shift toward System 4. One way is to try to obtain evidence from sources both inside and outside the organization of the advantages of moving toward System 4. This can include data, such as that from the Air Force, showing the preferences of members of the organization for moving toward System 4. Sometimes studies can be done on the operations of the organization showing that a shift toward System 4 would improve performance and cut costs. These facts can be used to overcome bureaucratic resistance. If, in a management audit, GAO pointed to the desirability of a shift toward System 4 to improve the agency's performance, this again could be used to help deal with internal bureaucratic resistance in the agency.

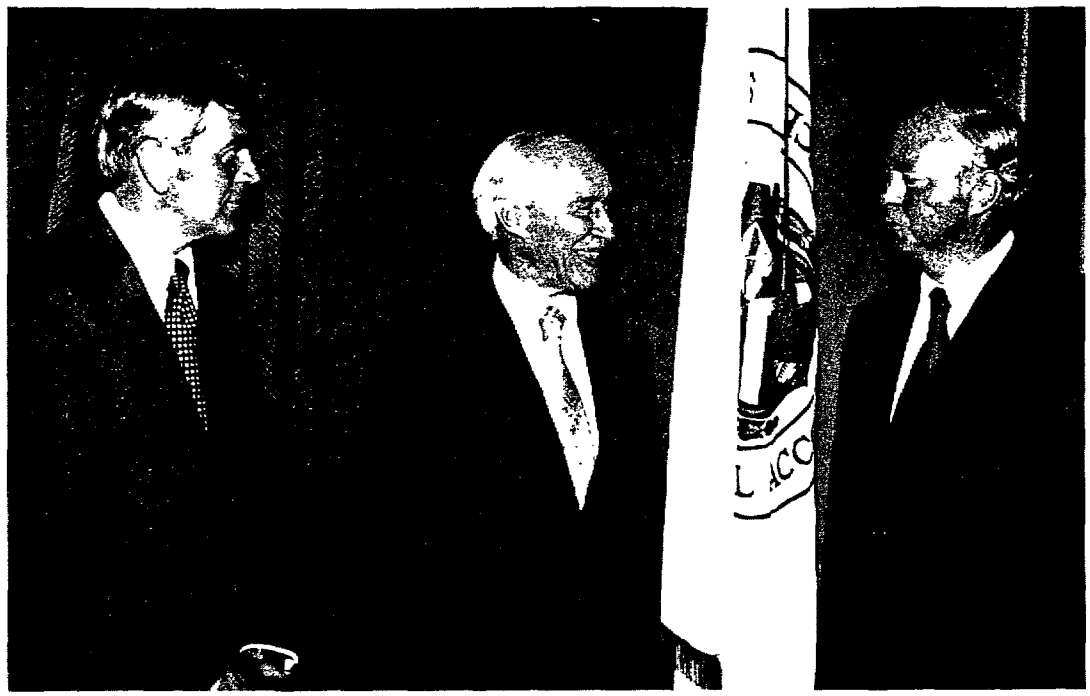
Do you think it takes a certain personality type to become a System 4 manager or do you think anyone can arrive at this type of system?

Dr. Likert: Most personality characteristics are influenced greatly by a person's experience and social environment. To an appreciable extent, consequently, they are learned through the processes of socialization. Of the two assembly plants in Figure 6, the high producing plant with a management system closer to System 4 than the low producing plant has three times as many supervisors with a System 4 orientation as does the low plant. System 4 organizations appear to socialize their members so that they tend to display System 4 behavior.

When managers wish to become System 4 managers, we find that they are impressively successful in doing so. They do not make the change overnight because they are changing deep-seated values and behavior variables important to their personality. But with the assistance of the survey feedback method and encouragement from those persons close to them, they sucessfully make the change.

Traditionally top managers have been paid a high salary commensurate with their decisionmaking and problemsolving responsibilities. Now under System 4, with group decisions, what's the future of the prospect for high salary for management?

Dr. Likert: Managers are paid for the results that they achieve, not just the



Dr. Rensis Likert, Chairman of Rensis Likert Associates, Inc., lecturer at GAO on June 27, 1974, with Elmer B. Staats, Comptroller General and, on left, J. Kenneth Fasick, Director, International Division.

decisions made. Results are a function of the excellence of the decision times the motivation to implement the decision by those whose behavior determines the results. The equation is:

Results (f) Excellence of decision × Motivation to implement the decision

With System 4, managers usually are able to reach better decisions and there is much greater motivation to implement them. On the average, better decisions are made because the manager has built his subordinates into a highly effective problemsolving team that makes good use of all the knowledge and competence that its members possess including those of the manager. With today's complex technology, few—if any—managers possess, alone, all of the technical knowledge required to reach the best decision.

Toward the end of the book by Taylor and Bowers (1972) there is a table showing the percentage of statistically significant correlations between the human component index scores and various measures of organizational performance. I believe only about 20% of the correlations are significant. Do you see this small percentage as being caused by poor reliability in the measurements of performance (i.e., excessive noise), or do your measurements of the human component indexes lack reliability and validity, or are you failing to measure the key dimensions of the human component of the organization?

Dr. Likert: There are several reasons why all of the correlations that you are referring to do not reach the level of statistical significance. You have mentioned three possible reasons. I will discuss each of them but first let me mention another reason, namely, the number of cases involved in the computation.

Most of the correlations reported by Taylor and Bowers are based on groups of workers rather than individuals, and some of the correlations are based on as few as 16 groups. (Groups of workers were used in computing the correlation coefficients rather than individuals because the productivity data were available for groups of workers but not for individual workers.) When N is as small as 16, the correlation coefficient has to be quite large to be statistically significant. Increasing appreciably the number of groups in each of the computations would have increased most of the percentages of correlations that were statistically significant to 100% or close to it.

Some of the performance measurements, as you suggested, are much less reliable than would be desired; that is, there is a lot of noise in the measurement. When the performance measurements are low in reliability, even the best measurements of the most important dimensions of the human organization cannot correlate highly with them. This, as you observed, is one of the reasons for many of the correlations not reaching the level of statistical significance. I do not believe that the other two reasons you mentioned are important causes of the percentage of significant correlations not being higher than about 40 percent. (Your statement of 20 percent is about one-half of the correct percentage if you use the relationship of the causal variables to productivity measurements.) The reliability coefficients for measurements of the human component indexes are approximately .90, which means that there is not much "noise" in these data. There also is much evidence to support the conclusion that the key dimensions measured represent the most important causal variables of the human component of an organization.

Have you studied the relationship between the human component variables and performance results in research organizations?

Dr. Likert: Yes, we have. We find that the same general pattern exists as for other kinds of work. The productivity of research organizations is hard to measure, but we developed reasonably satisfactory ways to do it. There is an excellent report of our studies done in several research organizations in the volume by Pelz and Andrews, *Scientists in Organizations.*

Have you found a place where System 1 was more effective than System 4 such as dealing with an emergency?

Dr. Likert: I formerly believed that in emergencies a manager usually would find it necessary to revert to System 1 or 2 management. But I know now that this will often not be the case. When John Paul Jones was made Director of Organizational Development at Union Carbide, he brought in five persons to head different phases of the work of the new department. These five and Jones devoted much time during the first few months of the department's existence developing plans and policies for the department. During this period they became a highly effective group. Jones found that when he was out of New York, visiting a company operation often in a remote location, any one of his five subordinates could take care of any emergency that occurred in his absence since each knew and could apply the policies that they had established.

Much of the work of GAO involves small audit teams. Do you see any role for a change agent in this kind of setup?

Dr. Likert: Yes, I do. The organizational structure of System 4, as I have mentioned, consists of highly effective face-to-face teams linked together into a total organization. The leadership and interaction processes of System 4 are, consequently, particularly well suited to any operation that requires teams. I believe System 4 can help GAO develop more effective teams and make better use of them by improving the coordination among them.

Walter E. Washington
Mayor, District of Columbia

As Mayor of the District of Columbia, veteran public servant, housing expert, public administrator, and civic leader, Walter E. Washington is well known to all residents of the Washington, D.C., area. His innovative approaches to the problems of urban government have brought him national recognition as well.

Mayor Washington began his career as a junior housing assistant with the National Capital Housing Authority, the nation's pioneer slum clearance and public housing agency. He rose through the ranks of the NCHA and was designated Executive Director of that organization in 1961. Several years later he became Chairman of the New York City Housing Authority, the nation's largest housing effort for low income families.

In 1967, Mayor Washington was brought back to the District of Columbia by President Johnson, who nominated him as the first Mayor-Commissioner of the reorganized city government. He was reappointed by President Nixon in 1969 and in 1973. In 1974 he became the first elected Mayor under the District of Columbia Self-Government and Governmental Reorganization Act, which became law in December 1973.

Born in Georgia, Mayor Washington was graduated from Howard University and has received honorary degrees from 10 other colleges and universities. His achievements have been recognized through awards from various civic, fraternal, religious, and professional organizations and have included the Career Service Award of the National Civil Service League and the Distinguished Alumni Achievement Award of his alma mater, Howard University.

Mayor Washington serves as Trustee of the John F. Kennedy Center for the Performing Arts and as a member of the advisory boards of both the U.S. Conference of Mayors and the Boy Scouts of America.

Today we are privileged to have with us a man who is well known to us, not only for his extensive knowledge of several areas related to GAO audit efforts, but also for his able leadership of our community government. Our speaker is the Honorable Walter E. Washington, Mayor-Commissioner of the District of Columbia, and nationally recognized housing expert, public administrator, and civic leader. Mayor Washington is a career public housing official who has directed both the National Capital Housing Authority and the New York City Public Housing Authority.

During his service with NCHA, he created the nation's first turn-key project. This method for providing low-rent public housing proved to be a viable alternative to conventional methods and has been used successfully throughout the country since that time. In 1967, Mayor Washington's outstanding leadership talents were recognized by President Johnson, who nominated him as the first Mayor-Commissioner of the reorganized Washington, D.C., government. He was renominated for the second and third terms by President Nixon.

Few cities have had closer scrutiny than the city of Washington, not only by GAO and the Congress, but by millions of visitors each year from the United States and overseas. We all have an interest in making the city a model reflecting the goals and aspirations of urban America. Mayor Washington has faced, and faces today, many difficult social and economic problems which are characteristic of an urban environment. He has faced these problems with imagination and forthrightness.

GAO has directed considerable effort toward the review and evaluation of District programs and Federal programs involving the District, sometimes critically but, hopefully, constructively. We in GAO have a relationship with Mayor Washington and his administration which goes beyond that of mutual concern about urban development. Although Washington, D.C., functions primarily as a city, and as such its government must deal with all of the problems and challenges of any great city, the District government must also perform for District residents most functions which are performed elsewhere by state, county, and local governments. In addition, the District of Columbia resembles a Federal agency in many respects.

The man who directs such a government whose constituents include District residents, the region, Federal agencies, the White House, and the Congress must be dedicated, far-sighted, and capable. Mayor Washington is such a man. He is nationally recognized as an innovative public administrator with tremendous capacity to handle a wide variety of difficult problems of urban government. He has received numerous, well-deserved awards and university honors, both before and during his service as Mayor-Commissioner.

—Comptroller General

Issues Facing the District of Columbia

Mayor Walter E. Washington

You must know how I feel being here with you at GAO today. I'm billed as the person to lecture to GAO—that's a change of position and you realize, of course, that I could not possibly give up that opportunity. But I am also delighted to be here because of my great feeling of respect and regard for you, both as a friend and as a public servant over the years.

I was deeply honored by and pleased to accept Mr. Staats' invitation to appear before you today. My topic concerns the nature and range of issues we face in Washington, D.C., as well as other major urban centers in the nation. In reading the Comptroller General's letter of invitation, I was pleased to learn that the GAO is placing increased emphasis on programs affecting urban communities and on ways in which Federal agencies can better relate their efforts to those of state and local governments.

I was also pleased to learn about the movement of many of the GAO staff into what you call "a day on the town." You are getting into the inner city and really seeing what is happening, really getting a feeling of what it is all about. I know you have found that it is about people. No matter what systems you may have to operate under, ultimately it gets back to people.

The Urban Crisis

Over the past decade the public media has been replete with stories about the growing urban crisis in America. The message is basically the same—the competitiveness of our urban centers is in danger. Outmoded and overburdened tax systems in most cities cannot keep pace with the rapidly rising costs of providing services to their residents. The more affluent, middle-aged, and income-producing elements of the population have for many reasons become disenchanted with city life and are continuing their pattern of out-migration from central cities. Ultimately, if not checked and reversed, this scenario will lead us to the eventual decay of the urban core, with little or no prospect for salvation for the whole region.

The day that happens, the day the inner core city really decays throughout this nation, we would want to think about what our nation really is, with 80 percent of the population living in urban environments. If we're talking about a decaying element without a reversal of the trend, we're talking about the very fiber that is crucial to the salvation of our nation. I think you've got to understand that before you can begin to deal with the other dynamics.

Ultimately we know that the answer to the problem lies in our ability to get control of rapidly rising costs that outdistance our revenue base. All of you know that you can't roll the basket into the supermarket and put $5 worth of food in it with only $1 in your pocket. Something is going to have to give on

the day of ultimate confrontation and it will probably be at the checkline. You can understand that. To the same degree we must come to understand the nature of the total urban situation in these simple terms. I do not want any of you to leave without knowing that what we're faced with in the urban crisis is a serious situation of not enough money to do what we want to do.

I, for one, do not subscribe to the "Doomsday Syndrome." Here, in Washington, a reverse trend is beginning to take place and it has developed because of the hard work of many people. Many young families who are urban oriented and enjoy the amenities of city life are putting down roots in the District. An example of this trend can be found in the 1970 census which shows that the number of households living in the city has increased over the past 20 years.

We have reversed the crime rate. We have gone beyond it just being a bookkeeping process to the point where people are feeling better about coming out into the streets. I gave a speech recently and said that one of the problems is that people have to come out from under the bed and get back into the street. You can't just peep your head out from under the bed and say, "What's happening out there?" You have to get out there to find what's happening to understand it and help us deal with the problem.

The problems of the urban crisis are grave. There is depression, there is confusion, there is poverty, frustration. With GAO's program of going into the inner city, I think you'll find the answer. You'll see it at first hand. That's the only way to understand it. I can talk about it, but you just have to get a feel of it. You just have to see somebody frustrated enough to talk bad and then you see it and begin to put it in perspective. Now why do I mention that here? I mention it because I think that it is important that all of us approach our jobs with a sense of what is real and develop a resolve to work for solutions.

I would suspect that the day of GAO's image of a guy with a green visor peeping over some figures is long past. What you're looking at now are programs and people and how they relate. You are trying to interface and interrelate these experiences with an image that's come from the green visor looking over some figures. As you try to find out what has happened, you begin to see in those figures human frailties, frustrations, misunderstandings. Now, maybe I am taking you too far. I hope not because I think you're there already. I believe that the time has come when we can talk about these problems together—the operator and the one that has the oversight.

Let's face it. We have undergone and will continue to undergo serious problems. But to deal with the problems of this city and this nation will require considerable amounts of money, time, talent, energy, and commitment to change. It is this latter element—commitment to change—which has been in such short supply throughout the nation.

Problems Shared With Other Urban Centers

The Fiscal Squeeze

Of all the issues the District of Columbia shares in common with other urban jurisdictions, the ever-present fiscal pressure is the most critical one. The costs of maintaining current service levels and meeting expanding service demands are out-distancing available revenues. I am told that we in the District have achieved some measure of notoriety for coining the so-called "15-5" rule. Simply stated, this means that the cost of providing services grows on the average of 15 percent a year while revenues, shackled

by the slowly growing tax base and rigid political boundaries, grow on the average of 5 percent per year, leaving a deficit of 10 percent without even touching the budget. Inflation, of course, adds to the gap.

The growth in the District's budget is vividly demonstrated by the fact that the total operating budget has grown 80 percent in the last 6 years. The budget went from $466 million in 1969 to $841 million in 1974, an increase of $375 million. Debt service accounted for 11 percent of the total growth in the budget during this period, and will increase at an accelerated rate in the future. Between 1969 and 1974, debt service costs increased 360 percent, with a 42-percent increase between 1973 and 1974 alone.

What are the basic reasons behind the budgetary growth experienced by Washington, D.C.? Several are unique to this city, but most are common to all major cities.

First, the fact that cities are involved in direct service delivery to a much greater extent than other levels of government makes them more susceptible to mushrooming workloads.

Second, major budgetary action had to be taken to address long-neglected citizen needs and problems associated with the city's physical environment. As a consequence, substantially increased funding was made available for crime control, narcotics addiction control, public assistance reform, elementary and secondary education, and the creation of a system to provide for the higher education needs of city residents. The creation of two new colleges, for example, has resulted in an increased enrollment of 12,000 students (500 percent) since 1968. In the public facilities area, a total of $827 million has been invested in new construction since 1968 to meet the problems of insufficient, deteriorating, and outmoded public service facilities. The major point here is that the chief executive of a city has to face up squarely to the responsibility for making hard decisions aimed at correcting serious deficiencies and moving his city forward.

Third, like all state and local governments, the city has faced increased personnel costs as a result of salary growth and additional staffing requirements caused by rising workload levels. Payrolls at the state and local level have increased 153 percent in 10 years, to $85 billion. Moreover, many public jurisdictions have adopted the principle of comparability to remain competitive with the private sector in attracting and retaining the best available talent. The principle of comparability took effect at the Federal level with the enactment of the Federal Pay Reform Act of 1962.

Fourth, the expansion of Federal grant programs and their attendant matching fund requirements have had a measurable impact on state and local costs. We have taken full advantage of the opportunities made possible through Federal grants as demonstrated by the creation of such beneficial programs as Model Cities, Medicaid, Law Enforcement Assistance, War on Rats, and Sewage Treatment Control. However, as the Federal contribution to these programs phases down, all states and cities are under great pressure to fund them with local resources. I look to the revenue sharing programs to help relieve these pressures, hopefully, with levels of funding that will provide substantial assistance.

Fifth, many activities traditionally handled by the family, community groups, and religious and voluntary organizations have now become the responsibility of government. This shift has been brought about by changes in the role and financial capability of these institutions, to say nothing about the

growing complexity and scale of the problems they must address. Although difficult to measure with precision, these forces have played a part in adding to the costs of state and local government.

Finally, the fact that the District of Columbia is also the nation's Capital has resulted in costs not borne by cities of a similar size. The millions of visitors who visit the Capital each year substantially add to the cost of a wide range of city services. The District Government must also accommodate the many mass demonstrations which take place in our nation's Capital. For the most part, these are not related to local issues but are national in scope.

Changing Composition of the Population

The changing composition of its population is a second major characteristic which the District shares in common with other urban centers. With the outmigration of largely middle-class young adult and middle-aged persons, cities are becoming increasingly populated by the very old and the very young.

The District's population in 1970 was 756,510. The population decline of 38,000 we experienced between 1950 and 1960 continued through the period of 1960 to 1970 when we lost another 7,500. This represents a total population loss of 6 percent in the last 20 years.

The effects of a shifting population on service delivery can be seen in the following profile.

- The number of school children between 5 and 17 years of age increased by 22,000 between 1960 and 1970. In 1960 there were 142,000 in this age group and 164,000 by 1970, a 16-percent increase.
- Young adults, aged 15–24, increased in number from 109,000 in 1960 to 145,000 in 1970, a gain of 36,000 in this age group.
- The number of senior citizens, persons 65 and over, grew by 2,000 during the last 10 years.

The city's dependent population, then, primarily the young and elderly, increased substantially by approximately 24,000 in the last ten years. Conversely, the numbers in income producing and taxpaying age groups declined. We have lost 25,000 persons between the ages of 21 and 64 since 1960.

Mean, median, and per capita income have risen in the city, but almost 21,000 families and 35,000 unrelated individuals reported incomes below the poverty level in 1969. This represents 125,000 persons or one out of every six District residents.

The Issue of Regionalism

Like most other cities, the major problems of the District and the solutions to those problems cannot be confined to rigid political boundaries. Events and conditions in the city impact the surrounding jurisdictions and they in turn impact on the city. For example, the increasing pressure on the District from outside its borders can be seen in the flow of vehicular traffic, which has increased 140 percent in the last 20 years. The interrelationship between the city and the suburbs is not only visible in the transportation area, but also in such areas as air and water pollution control, crime control, housing, narcotics addiction, and poverty.

I look at our metropolitan area. There was a time when we talked about competitiveness and I did not really know too much about that until I found out a little about our water. I learned that our water, at least the waste water, comes from five jurisdictions, including Pennsylvania, West Virginia, and Maryland. Now there's no use worrying about mutual pacts and cooperation in the metropolitan area as long as I have responsi-

bility for the ultimate cleanup process with respect to the water.

Nobody worries about me having the waste water. You get cooperation in peculiar ways. I was addressing a group of my metropolitan friends the other day and I said, "You know, I'm so glad that you want this pact on air pollution." And they asked me, "Why?" I said, "Because what you find out about is that imaginary line dividing the District from Maryland as far as air pollution is concerned is delineated by whether the wind is blowing north or south." There's no use talking about a situation where one goes it alone, when just the shift of the wind determines who's got the pollution. I don't want theirs any more than they want mine. What I want to do is work out a mutual pact to see if we can't do something about both of them, in our interest—yours and mine—wherever you live in this metropolitan area.

Now these are simple things and I would suspect that if a GAO representative were looking at that problem he would want to see it on those humanistic terms, not just with a slide rule. How would he be able to determine whether my program was working if he was standing on the Virginia line? He would have to find out which way the wind is blowing and then find out whether Virginia or Maryland or Washington was responsible. He might find out that it was West Virginia. Then I don't know how he would judge the effectiveness of the District of Columbia's antipollution program. These things get intertwined in the broader perspective of urban concerns, but I really think that we're all on the track of not only understanding but dealing with this situation.

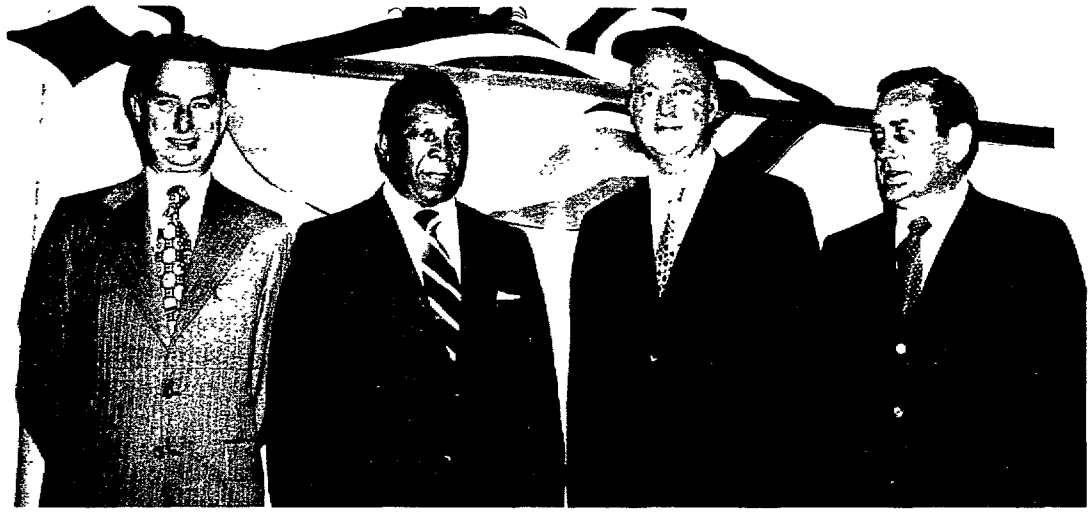
Like other cities, the District has concentrated problems all out of proportion to its share of the metropolitan population and land area. Significant steps have been taken toward a cooperative and coordinated approach to solving regional problems, such as the Metro in transportation and the WALES System in law enforcement. But this may not be enough to deal effectively with our problems over the long haul. Perhaps we should begin rethinking the role and functions of the central city and its financing, redefining the boundaries of the "real city," and redesigning our political institutions and structures.

Characteristics Unique to the District of Columbia

After covering the three major matters which Washington, D.C., has in common with other urban centers—the fiscal squeeze, a changing population composition and regionalism—I would like to turn my attention to two major characteristics of this city which make it unique.

To begin with, Washington is unlike any other city in that it performs the full range of state, county, and municipal functions. Our city budget finances a system of public higher education, a corrections department, a motor vehicles department, the full range of social services and public assistance programs, air and water pollution control programs, street cleaning operations, and police and fire protection, to name just a few.

The typical city budget begins in the executive branch and ends with final action by the city council. As part of the Federal establishment, however, our city's budget and revenue proposals are also channeled through the regular Federal appropriation process. We probably have the most complex budget cycle of any state or city in the country. In addition to the city council, our budget is reviewed and approved by the President and the appropriation subcommittees in the Senate and the House. If additional revenue authority is needed



Mayor Walter E. Washington, District of Columbia, lecturer at GAO on April 26, 1973 (second from left); on left, E. H. Morse, Jr., Assistant Comptroller General; on right, Elmer B. Staats, Comptroller General and Victor L. Lowe, Director, General Government Division.

to finance the recommended budget, the city's revenue proposal must be approved by the House and Senate District Committees.

These are just some of the considerations that we deal with. I know that the wisdom of the Federal establishment is unimpeachable—no question about it. They provided a program for me to handle rats. Before that time, I had a section of my code enforcement unit dealing with code enforcement rats—they're the housing type. I had another in the health department dealing with the restaurants—they are the business rats—and then the Park Service had a series —they're the park rats. However, the rats paid no attention to the jurisdictional allocations. Then somebody started asking, "The population is increasing. Do you have the capability?" Well, we had the capability but we just didn't have the coordination. Nobody had provided for that. We had categorical money and everybody was troubled about it and the rats were having a ball. They never worried about whether they were in Georgetown or anywhere else.

Seriously, the concern here, my friends, is once again consideration of other factors that apply to a given set of situations that grow out of a human fabric. Everybody thought the war on rats was a good idea because it was effective. One can ask: Is there a link or thread that is missing? GAO, in its new thrust, will pick up that missing thread if we don't. GAO is now looking beyond the figures at the bottom line. It is looking at management effectiveness and the capability and the coordination and saying if you mesh those three, you'll have a good product—and a dead rat. Out of that we get a kind of assistance that is so important and so much needed.

Major Issues

Before proceeding with some of the steps we in the city government have underway or planned to improve the effectiveness of the District Government and the management of its resources, I would like to mention several key areas that will receive our attention in the days and months ahead. They include:

- *Seeking the approval of a more predictable Federal payment to the District of Columbia.* This payment is another planning tool, a tool that

traditionally has come to the city in increments. At the moment it is $190 million and that's for the services that we render in lieu of taxes to the Federal Government as a Federal establishment. What we're suggesting is that the Congress let us know in 3- or 5-year increments what we have so that we can have it seasonably and can plan to it.

- *Streamlining the organization of the District Government to establish a direct line of accountability for program results.* This was given a great charge by the Nelsen Commission. They produced 420 recommendations on the structure and organization of the government and we're busy now trying to effect some of them with the help of GAO. We have made changes in the fiscal and the accounting area that suggest improved accountability.
- *Legislation to give the District Government authority to undertake comprehensive local planning and to deal with critical problem areas such as housing and community development.* We think this is vital. Any billion dollar jurisdiction or corporation as ours is must have a planning tool that is inherently a part of its own organization. We're suggesting to the Congress this year that we have this opportunity.
- *Legislation to give the District Government full revenue authority.* That is an essential part of responsible government and self-determination.
- *Reducing dependency through public assistance reform and more effective manpower training and job creation programs.* What we're talking about here is no real great reform. It is simply a matter of matching a job to the person and providing day care services. Then the mother or father who is working will know the children are taken care of so that they can work freely and productively. That sounds to me as something that came in with the Constitution, but now we're calling it reform. That's all right, whatever name it has. We are getting on with the job. We are happy to report that, during the first 3 months of that program, we've been able to reduce the rolls and actually put a number of people into gainful jobs.
- *Providing a sufficient quantity and quality of reasonably priced housing to meet the needs of city residents.* One of our problems here in the city is to provide a decent and reasonably priced house for the young family. Then the process of raising a family can begin without its members finding themselves in either foreclosure or bankruptcy. The housing costs in the city have soared. It's not rents necessarily; it's more in the cost of land and the cost of property, but in some cases it is rents.
- *Improving the quality of correctional care and the effectiveness of offender rehabilitation.* We think that, as we have looked at the criminal justice system, it has left something to be desired. We have added judges and policemen but the buck has stopped at the jailhouse. The problem is that we have not fully recognized it as an integral part of the process. There's no major city in the nation that does not have a problem with its corrections program. Either the facilities are outmoded or the correctional programs are outmoded or both. They're not leading to rehabilitation of the offender so that he or she will return to the community to start a new

life with some help and with some skills.

- *Improving the productivity of city programs.* Only then can we be assured that we are using our resources effectively.
- *Developing long-range solutions to problems of waste disposal, air and water pollution control, and water supply.* These are metropolitan problems and must be looked at in a regional context.
- *Analyzing the question of vehicular control as it relates to pollution, traffic congestion, and economic development.* If we cannot move our people efficiently, we cannot function as a city.
- *Developing a strong economic development program in the District of Columbia.* This is the same thing that we see in every city—the need to develop a new base for new jobs and new opportunity in order to increase the tax base.

A pivotal area is the development and maintenance of a highly qualified management staff throughout the District Government. I firmly believe that a government's ability to efficiently and effectively deliver services to its citizens and to react properly in times of crisis, and to adapt to changing conditions is totally a function of the quality of its management talent.

We are looking at this as a better way to do our business. We believe that the development and maintenance of a highly qualified management staff is very, very important. The kind of training we were talking about earlier—someone going into the inner city, seeing what's there—is far more significant than sitting in a classroom. I see a need for on-the-job training, for training that meets the needs of a staff and the needs of the service community that are our constituents. I certainly applaud you in GAO for that kind of training because that's the direction that I'm going. I believe that this is very important and beyond that is the fact that we recognize opportunity within the framework of our staffs. It's one thing to have capable, qualified management staffs; it's another to have not only training opportunity but equal opportunity within the staffs so that there is a horizon out there for all people to grow and thrive in the organization. In my opinion that's what stabilizes the organization and builds a morale factor that cannot be challenged by anyone.

Improved Management: A Strategy for Resolving the City's Dilemma

A number of state and local governments will be coming through the current fiscal year and entering the new fiscal year with sizable budget problems. These were created by tax increases levied during the 1970 recession and revenue sharing windfalls. However, in a recent magazine article, Robert Armstrong states, "There is no evidence that the long term budget outlook for state and local government has improved." He further points out that current surpluses are only temporary. ("A Better Way to Pay for Public Schools," *Fortune,* February, 1973.)

I think all of us in the business of managing large urban governments recognize that the vise which is gripping cities, rising costs on the one hand and mounting workloads and service demands on the other, is not about to ease its pressure in the foreseeable future. The dilemma one faces, then, is how to act in a fiscally responsible manner and still meet legitimate and high-priority citizen needs. Neither individuals nor businesses are enthusiastic about the prospect of having an already heavy tax burden further increased. And yet mas-

sive cuts in essential services appear to be an equally unpalatable alternative to most citizens.

A partial answer to this dilemma, I think, lies in Mr. Armstrong's comment that *sound management is the great money saver, not an antique tax system.* We in the District Government have just embarked on a program to improve the management of city programs and resources. In addition to the efforts we are making to carry out the many useful management improvement recommendations contained in the Nelsen Commission Report, we have made substantial progress on the development of a strengthened multiyear financial planning capability and on the design of a city-wide performance monitoring system.

Multiyear Financial Planning System

An automated multiyear financial planning system has been developed by the District Government which will be used to project future costs on an agency and program basis. This system will permit us routinely to review our mix of program investments and to analyze their long-term cost implications. Moreover, the capability provided by this system will facilitate the process of establishing program priorities, reviewing agency program change proposals, and examining expenditure and revenue proposals under varying assumptions (e.g., alternative pay raise levels, workload levels, etc.).

Productivity/Performance Monitoring

My staff is now exploring the feasibility of establishing a comprehensive program for increasing productivity in the city government. Our interest in pursuing this important course stems from a firm belief that we must present tangible evidence of the return taxpayers are getting on their investment if we expect to win their support in sharing the continually rising costs of public services. To stretch the most out of our resource base, our productivity initiatives will emphasize better performance by *setting clear performance goals in key city programs and monitoring progress toward their accomplishment.*

The general strategy we ultimately follow in the productivity and performance area should be designed to help city officials, at every level, carry out their responsibilities more effectively by giving them better tools for total program management. Thus, we would have the capability to monitor and account for program *results* in much the same way that financial controls help us to monitor and to account for program costs.

As a parenthetical note, I would like to commend GAO and the other two agencies involved in the joint Federal productivity project for their leadership in promoting productivity improvement in the Federal sector. Your contributions in this field have been extremely valuable as we begin to look for places to apply these important management concepts.

Issue Analysis

In addition to these techniques to strengthen our managerial and policymaking responsibilities, we are refocusing an existing one, our ongoing issue analysis process, to direct our analytic resources on the critical decisions we face. Our primary emphasis for issue analysis will be on program evaluation, a retrospective look at selected programs to assess program impact, effectiveness, and operational efficiency. Where corrective action is needed, we will examine alternative ways of delivering services to find more effective and productive approaches. The major point here is an

important one from an overall resource management standpoint: by continuing to invest in programs that are not meeting their expectations, we significantly reduce our flexibility to initiate new departures in other areas. Thus, we must redouble our efforts to periodically evaluate ongoing programs to make certain they are living up to their original expectations.

Conclusion

Whether it be the District government or any government attempting to deal with its problems through better management, there were several important points discussed at a recent seminar I held that should be kept in mind throughout the process.

- *Government manages only a very minor part of the complex world of human behavior and our knowledge of human behavioral response is extremely limited.* This fact becomes critically important since program success is dependent upon predictable human responses, especially in the social area. It also means that we are not going to have 100 percent performance in many of these programs.
- *Traditional and rigid patterns of thought with respect to program development and execution are out of place in our dynamic world.* People behave differently now than they did 15 years ago and approaches which worked well then won't necessarily be successful today. Witness the failure of many public programs governed by traditional wisdom.
- *The time lag between the formulation of a program, authorization and approval of funding, and its implementation is a severe constraint in a dynamic environment.* The approach finally taken often does not deal effectively with the changed nature of the problem.
- *A significant number of good public programs have failed because of faulty implementation.* We need to devote more attention to this critical area.
- *Reordering priorities is going to be a long-term proposition.* Often the public makes the erroneous assumption that this can be accomplished rather quickly. A considerable amount of time is needed to shift staff, equipment, and facilities geared to a specific purpose to some alternative form of activity.

I hope this overview and the points I have made in the course of my remarks have provided a clearer perspective on the issues I face as chief executive of Washington, D.C.

DISCUSSION

The Deputy Mayor of New York about a week ago said that the number of heroin addicts in the city jails in New York had declined more than 50 percent in about 2 to 3 months. I read in the Washington Post *that the crime rate here in the District has declined. I read in a magazine this past weekend that there hadn't been a single, major disturbance in any one of the universities around the country this year and I read columnists who say that something is happening in the country, that there's more observance of law. Would you agree with that and if so what would be your response?*

Mayor Washington: I do believe that there is a feeling in this nation of a greater and greater respect for law, order, and justice. I think you've got to add the component of justice. It's not just the law and order syndrome. It's justice as well. I have said all along that all of the policemen that you can put together and all of the guards that you

can put together and all of the strong statements that you make will not really have an impact on crime until the people get ready to work with it. As long as you have somebody getting knocked in the head in front of 12 people and they walk away from it, you get one kind of syndrome. As long as you look out from under the shade and see somebody robbing your neighbor's house and you pull the shade down because you don't want to get involved and have to appear one day in court and lose a day from the office—as long as you have that feeling, then things are going to go badly. But once you come to feelings in the community that things are no longer workable, you're going to take a stand. I think this is what the students did in the colleges. They came to recognize that jumping up and down with the bongo drums and the signs wasn't getting anything into their heads. They decided that if they were going out to compete on the open market for jobs and positions, they were going to have to prepare themselves for the challenges. This is what they tell me.

We see it here. When I see a thousand youngsters calling themselves the Crime Stoppers walking down the street in various neighborhoods, I know people are becoming involved. I know that something is happening and I would say that this attitude is one that you can just about identify now as being a change from the sixties into a posture of the seventies where people want to see something happen. They want to participate in something constructive. They want to live a little, enjoy some of the fruits of their labors, and they're willing to put their mouths and their dollars and resources out to back it up. I think that syndrome is here very definitely and I think you're going to see more of it. In the inner city it's called "getting down to business."

Mayor Washington, in your talk you mentioned the Nelson Commission study. One of their recommendations concerned the centralization of the District's housing and urban renewal programs in one agency. The Commission suggested that the District initiate legislation to this effect. Has such legislation been drafted? And if so, what do you see as the chances of such legislation being passed?

Mayor Washington: The answer to the question is "yes." We do have a draft bill which is a part of a total legislative package that is in the process of going forward. My view on it is that it's a good move but I would caution you about moves of this kind where organization is not necessarily good just because it combines two things. In other words, for the public housing unit and the urban renewal unit, it was suggested that we combine the agencies. The problem is whether, out of that combination, they get any more resources to do the job or whether we are just bringing two things together because we think it's a good idea. I think it is a good idea but there are some problems with it. One of the problems is that, in the housing authorities case, we have $200 million worth of bonded indebtedness impressed on the full faith and credit of the United States. Well, I haven't found a way to bring that $200,000,000 over into the District budget and I'm not looking too hard for it.

There are some technical questions that we are going to have to get to before that legislation really gets through. I think that it has a very good opportunity to pass. Along with those two units will also be a reorganization of our zoning commission. I think zoning is one of the key elements in planning and frequently has a greater degree of impact than any other element.

To what extent do you think that

mass transit requires Federal, State, or local financial support? Also should we use the Federal Highway Trust Fund to pay for mass transit in the cities?

Mayor Washington: Well, on the first question, I don't think that any locality by itself can sustain mass transit without some form of Federal aid, assistance, subsidy or what have you. The city just has no capability of doing it alone. Most of the cities at the moment are either in financial distress or nearing bankruptcy and such a substantial capital improvement would just inundate any city.

This is the situation. In our case, about $1,200,000,000 will be required. With bus service, about $1,400,000,000 would be required. There's just no way we could sustain it without Federal help. I really don't have a strong position on the matter of where you take it from, whether from the Highway Trust Fund or some other place. I just know that it's got to come and I know that it's important. I know that it's at the heart of any city's or metropolitan area's survival that they have connections with the inner city and the suburbs—for every reason: employment, the economy, and the life of the community. I think UMTA is an appropriate source for it. If it was properly funded or at the proper funding level that could be a source.

The question of home rule is coming up again in this session of Congress. If home rule is finally extended to the District of Columbia, are there any specific powers or functions that you think the President or the Congress should retain over the District in relation to its position as the seat of government?

Mayor Washington: Well, I think that the Constitution gives the Congress certain overseeing rights and I don't think anybody's questioning that. I think what we're talking about there is not what is left but how much can be delegated in relation to local matters that we can determine as a matter of local priorities and responsibility. We get into this long debate about the Federal presence but there is no use debating that. The Capital is here and nothing is going to happen to it. And the White House is here and the monuments are here and GAO is here.

The problem is, once we recognize that we've got a Federal presence, unless you're talking statehood, then you're talking about how you handle those functions that relate purely, solely, basically to local matters on a day-to-day basis. Then there is a grey area such as the Federal payment. Obviously the Congress should retain some oversight with respect to the Federal payment. And the citizens, on the other hand, paying 80 percent of the taxes, should be able to determine local priorities. So what you're talking about there is an agreement or a compact setting Federal payments, say, for 3 or 5 years, and then reviewing it together. They set the pattern, they set the rate of Federal payment in agreement, and we retain responsibility locally for our priorities and our destiny.

There are a whole group of areas like that and then there are some areas where the Congress and the President have exclusive jurisdiction. Once those are defined, we're not going to have much of a problem—except for the problem that relates to whether or not you want certain people running your government. Those emotional issues—ethnic and racial issues—they'll always be there but they won't lend themselves to definition on a chart.

Do you think that the people of Maryland and Virginia should be taxed for the use of D.C. facilities?

Mayor Washington: I testified on that subject yesterday before the Senate and I had a few letters on the matter today.

A couple of my old friends in the suburbs wanted me to know that they didn't particularly care to be friendly until I changed my views on the reciprocal tax. I believe in the reciprocal tax—it's a tax of reciprocity. It's used in every jurisdiction in America, without exception. It's imposed differently—New York just imposed $500,000,000 of it last year. I'm not saying that I want to do it tomorrow. I'm saying that as a jurisdiction with a revenue problem, it ought to be one of the options that I have the authority to use if and when I need to use it. And that's where I stand on it. Now, I don't want to hurt anybody and the reciprocal tax shouldn't hurt anybody.

But the equity of it I think is the equity of American jurisprudence. The whole matter is within the jurisdiction of practically every city and state and I'm just asking for a piece of the action.

With current Federal emphasis on decentralizing responsibility for developing and financing programs to state and local governments through revenue-sharing, what long-range impact do you think this will have on the management and management systems of cities?

Mayor Washington: I'm glad to do a little crystal-balling on that. I think the big problem with the revenue-sharing approach is the level of funding. If cities and states could be assured that they could come out about at the level of funding that they're operating at now, I think some of the opposition would disappear.

The real thrust I think that forces us into management and systems mechanisms—systems like criminal justice systems and human resources systems—is the removal of categories and the removal of constrictures and the development of flexibility in using our resources. Now once you get a bulk of money, you've got to comprehensively plan to use it appropriately. You've got to manage it better. You've got to account for it better than you did for the category and I think it nearly forces systems into consideration whether you want them or not. There's going to be some reaction to them because this business of managing resources and manpower is a science now. You can't play with it any more as a political strategy. This is a science. The more you get out of categorical constrictions the more you have to plan for and the more you have to account for. Right now I'm very sure somewhere in this building somebody is sitting down with revenue-sharing techniques and considering how you keep those cities and states from going way out on the deep end. Somewhere in this building somebody's thinking about it because you know you're going to have to come behind it. You know if resources aren't managed properly and used properly your business is going to multiply. There's no question about it.

For the purpose of general revenue-sharing, is the city of Washington going to be considered as a state or a local government?

Mayor Washington: Well, I'm a governor and a mayor and really I'm a commissioner. For purposes of general revenue-sharing, we're considered both as a state and a city. We have to keep the guidelines separated because there are some that deal with the state aspect and some that deal with the local aspect. We have to keep them separated and account for them in that fashion. But the answer to the question is that we're treated in general revenue-sharing as both a city and state and we get both funding resources from that category.

Do you think that the relationship between Washington and the Congress is similar to the relationship between the city of New York and the New York State Legislature?

Mayor Washington: Very similar. That was why you heard John Lindsay talking here a few months ago about wanting the same home rule that the people in Washington are talking about. But what he was really talking about was the limitations on the city and the activities of the state in relation to the city. I would say that probably comes as close as anything to the Washington situation. The difference here is that an assemblyman in the state from Buffalo would not think the same about New York City as would a congressman from anywhere about this city. But we must remember that this is our nation's Capital and it is the Capital of the free world. It is good that all of our citizens in the city and the nation have a good feeling about our nation's Capital for its real and symbolic value to our democratic way of life.

Assisting the Congress

I am pleased to extend to you and the members of your District of Columbia audit staff my thanks and appreciation for the very fine work you have performed for the Committee for the past two years. Especially helpful have been the investigations into several proposed construction projects which have resulted in savings to the taxpayer on the order of tens of millions of dollars.

Senator Birch Bayh
Chairman, Subcommittee on the District of Columbia, Senate Committee on Appropriations, to Comptroller General
February 7, 1975

Erwin N. Griswold
Partner, Reavis, Pogue,
Neal, & Rose

Government official, law school dean, practicing lawyer, author—these terms describe phases in the long and outstanding legal career of Erwin N. Griswold.

After receiving his law degree from Harvard University and being admitted to the Ohio bar in 1929, Mr. Griswold joined the firm of Griswold, Green, Palmer, and Hadden in Cleveland. Within a year he came to Washington, where he served as an attorney in the Office of Solicitor General and Special Assistant to the Attorney General.

In 1934 Mr. Griswold left Government service to become Assistant Professor of Law at Harvard Law School. During the next 33 years Mr. Griswold served in turn as Professor of Law, as Dean and Charles Stebbins Fairchild Professor of Law, and finally as Dean and Langdell Professor of Law at that institution.

Dean Griswold was appointed Solicitor General of the United States in 1967 by President Johnson, a position he held for 7 years.

Mr. Griswold is a member of the American Bar Association, the American Law Institute and the American Philosophical Society. He has served as a trustee of Bradford Junior College, the Teachers Insurance and Annuity Association, the Harvard Law Review Association and, currently, Oberlin College. He also served as State Delegate for Massachusetts in the House of Delegates for a number of years.

Mr. Griswold has been awarded many honorary degrees from universities in the United States, Canada, Scotland, and England. He is the author of several books and a contributor to legal periodicals. His most recent book is Law and Lawyers in the United States *(1964).*

It is a great honor and privilege for me to introduce the Honorable Erwin N. Griswold as our speaker today in our continuing series of lectures on Changes and Challenges for GAO.

The General Accounting Office occupies a unique position in our governmental structure, with a close intertwining of management oversight and legal responsibilities to the Congress and to the public at large. I am eager—as I am sure you are—to learn what conclusions Mr. Griswold, with his background and experience, has come to on the functions of our Office.

Mr. Griswold began his career as a student at the Harvard Law School, moving into the private practice of law upon his admission to the Ohio bar in 1929. He quickly entered public service as an attorney in the Office of the Solicitor General and as a Special Assistant to the Attorney General. From there he went back to Harvard Law School as a professor and in 1946 was named Dean of that institution, a position which he occupied until 1967. Then, 25 years after leaving the Department of Justice, he returned as Solicitor General of the United States.

During his career and in the course of his stewardship at Harvard, Mr. Griswold found time to contribute his wisdom to numerous societies and associations as well as to write extensively in various fields of law. He was President of the Association of American Law Schools, on the Board of Directors of the American Council of Learned Societies, and a member of the U.S. Civil Rights Commission—just to name a few. He is the author of what is recognized by lawyers as definitive texts on spendthrift trusts, Federal taxation, and conflicts of law.

Mr. Griswold has had great influence on the legal thinking and philosophy of this country and abroad, not only as a result of his personal accomplishments but through the more indirect impact which flowed from his shaping of the Harvard Law School and from his presence and availability to the many students who learned from him.

Today, Mr. Griswold is again engaged in the active practice of law as a partner in the firm of Reavis, Pogue, Neal & Rose, of this city. We appreciate his taking the time to ponder the functions of GAO and to share with us the conclusions he has reached generally about the law and its place in government.

—*Comptroller General*

Drawing Lines

Erwin N. Griswold

Much of the work of government consists of drawing lines. This is particularly true in our American government, which has two divisions deeply imbedded in its history and structure. There is, first, the line to be drawn between those functions which belong to the states and those which have been delegated by the states under the Constitution to the Federal Government. And then, by the terms of the Constitution itself, there is the separation of powers through the allocation of powers to the executive, the legislative, and the judicial branches of the Government.

Some lines can be stated precisely, and can thus be drawn with relative ease. If the statute of limitations expires on Monday, then Tuesday is too late. If, as in my home state of Massachusetts, three witnesses are required to make a valid will, then two are not enough, and having four is neither necessary nor useful. But most lines in the law are not that clear. As Justice Holmes said in his opinion in the Haddock case, nearly 70 years ago, "Most distinctions are of degree, and are none the worse for it." No one doubts the difference between night and day, or between youth and old age. Just where one ends and the other begins is a matter of great uncertainty. We have recently been experimenting with the age for voting, and it may be hard to show, now or later, that 18 is a better place to draw the line than 21.

Not only are many of these lines hard to draw, but we have to recognize and accept the fact that many of them can probably never be drawn with finality or ultimate precision. Part of the problem arises because the places where the lines should be drawn are often changing. I have already referred to the question of the relations between the states and the Federal Government. One of the places where this constantly rises is with respect to the regulation of interstate commerce. A hundred years ago, in *Paul* v. *Virginia*, it was decided that insurance is not commerce, with the result that interstate transactions in insurance were not interstate commerce. That decision was overruled 30 years ago in the *South-Eastern Underwriters* decision. Does that mean that the Constitution is changing, though its words remain unchanged, or that the Supreme Court is acting as a continuing constitutional convention? I would put a different interpretation on it. In this particular instance, it is the economy of the country, and the interrelations of its people, which have changed. The ease and frequency of interstate communication have enormously increased; the role of insurance in commercial transactions has expanded accordingly; and what the court did, essentially, was to recognize that the situation—not the Constitution—has changed, so that it is now appropriate, indeed essential, to recognize that transactions in insurance are an integral part of interstate commerce.

I had occasion to deal with this within the past year. There is a good deal of discussion about "no fault" insurance for automobile accidents, and a bill is pending before Congress which would enact a national standard for no-fault insurance with which the states must comply. The suggestion was made that Congress had no power to impose such an obligation on the states. It was said that this would interfere with their sovereignty, that it would impose duties on state officers which they were not authorized to undertake by state law, and, indeed, that in some cases it would require states to take action which was forbidden by the state constitutions.

Yet careful examination of these questions showed convincingly, I thought, that Congress does have the constitutional power to enact a Federal statute on no-fault insurance if, in its judgment, it concludes that such a statute is desirable. The power to do so is found in the commerce clause, because of the pervasive effect of insurance on traffic on our highways, and in the power expressly granted to Congress to establish post offices and post roads. Whether Congress should pass such a statute is another question. It may well be, though, that the only way that inertia in the states can be overcome is through the substantial prod that would be given by the enactment of a Federal statute. This is essentially the device which we have utilized effectively with respect to unemployment insurance and other social welfare programs—not to mention the Federal statute on daylight saving time which was enacted earlier this year.

Drawing Lines Where Criteria Are Not Exact

In the general realm of constitutional law, there are many lines which have to be drawn where the criteria are far from exact. One example of this is the law of search and seizure.

The Constitution says that searches and seizures are invalid if they are "unreasonable." The result is that every search and seizure case raises a constitutional question, and many of these cases, with their widely varying facts, come to the Supreme Court for decision. In recent terms there have often been as many as 10 of these cases among the cases selected by the Court for decision on the merits. Yet the nature of the facts in these cases is such that very few clear or consistent patterns appear. There is a similar situation with respect to the question of obscenity, which, too, becomes a question of constitutional law because of the provisions of the First Amendment. Here the Court has been more or less forced to take the position that virtually nothing is obscene in order to avoid having to spend a large portion of its time viewing this material.

There are other lines under the first amendment. This was perhaps most spectacularly illustrated in the case involving the publication of the Pentagon papers by the *New York Times* and the *Washington Post*. In this area, the words of the Constitution are sweeping and unqualified. "Congress shall make no law restricting the freedom of speech or of the press." There are those, including Justices Black and Douglas, who think that these words should be taken literally, and that no prior restraint on speech or on publication can ever be imposed. Certainly the words of the Constitution go very far, and should be applied broadly. Nevertheless, it has always seemed to me that there are limits, that there are situations where a prior restraint can validly be imposed.

Justice Holmes gave an illustration, when he said in his dissenting opinion in the Schick case, that freedom of speech did not extend to protecting a

person who falsely cried "Fire!" in a crowded theater. And Chief Justice Hughes in *Near* v. *Minnesota* gave as examples that the press could be restrained from publishing the movements of troops or the sailing dates of ships during war time. I would be prepared to support these constructions of the Constitution, even though the constitutional language is unqualified.

When the Pentagon papers case came up in June 1971, under circumstances which left very little time for consideration, there were those within the Government who felt that we should seek to prevent the publication of any of the material, simply on the ground that it was marked "Secret" or "Top Secret," under President Eisenhower's Executive Order, and that was enough to make any publication illegal. It was my judgment that any such contention sought to push the line too far, and was unlikely to be sustained by the Court. It is not widely known to this day, but the position actually taken before the Supreme Court was a very limited one. We said that we had no objection to the publication of any of the material, except 11 items. As to these 11 items we contended that there was a substantial risk to national security, or to the safety of individuals, including prisoners of war, and we undertook to deal with these 11 items in a secret or closed brief which was filed with the Court. As is well known, a majority of the Court refused an injunction even as to these 11 items. However, the fact is that neither the *New York Times* nor the *Washington Post* published any of these 11 items for several weeks after the decision of the Court. By that time all of the material had been published, through the activities of Senator Gravel and the Beacon Press, and the papers rightly felt that they no longer had any responsibility to withhold further publication.

But the net result is that no one knows for sure just what newspapers may publish, and what, if anything, may be restrained. No one knows just where the line is drawn. Though a majority of the Court refused to grant an injunction in the Pentagon papers case, there was also a majority of the Court which said that one who did publish under certain circumstances could be held responsible for the publication. There are those who say that it was unfortunate that a precise line was not drawn by the Court. My own thought is that this is a line which it is well to keep uncertain and unclear. No one can foresee the circumstances under which questions of this sort may arise in the future, and the indefiniteness and uncertainty of the law will lead to responsible and careful consideration of any issue both by the press and by the government. It is clear that there are very few things which can be the subject of a restraint on prior publication. But there is also room to think that there are some items which would not come within a proper construction of the first amendment. We very nearly had an example during the early years of World War II. The *Chicago Tribune* published the news, following the Battle of Midway, that American success there was due in part to the fact that we had broken the Japanese code. Steps were taken to start a prosecution, and eminent special counsel was retained. However, it became apparent that there could not be a trial without introducing evidence as to the details of the code breaking. And as time went on, it also became apparent that the Japanese did not read the *Chicago Tribune*. So the planned prosecution was dropped. But this remains, in my mind, an example of the sort of publication which, in proper circumstances, may be restrained.

Pushing the Line of Federal Power

Sometimes, in other fields, the line of Federal power gets pushed very far. I think particularly of two cases in recent years, both based on the commerce power. In one of these, *Maryland* v. *Wirtz,* the question arose as to the scope of the power of Congress under the commerce power in the area of intergovernmental immunities. The Court held that Congress could validly make the fair labor standards act applicable to employees of state-operated schools and hospitals. This, I suppose, is probably a result that would not have been reached at the time *McCulloch* v. *Maryland* was decided, where it was held that a state had no power to tax notes issued by a federally chartered bank. The other case where the commerce power was pushed very far is *Perez* v. *United States* (402 U.S. 146 (1971)). There the Court upheld the validity of a Federal statute making "loan-sharking" a crime, although the victim there was the proprietor of a Brooklyn butcher shop, and all of the events happened within the state of New York. Justice Stewart dissented, but his was a lone voice, and all the other members of the Court joined in the opinion sustaining the statute.

Because lines have to be drawn, and are in some areas at least, constantly shifting, there is often a tendency in government to seek to expand jurisdiction and authority. I have already illustrated this with respect to the commerce power, where we have seen that the Federal Government now exercises a much wider power than it did a century or even a generation ago. Here the shifting result has been due, to a large extent, to a change in the underlying circumstances with respect to communication, transport, and "togetherness" in our nation. Matters which, in the past, were of only local concern and did not affect interstate commerce, like insurance and accidents on the streets and highways, are now recognized as having so close a relation to interstate commerce that it is appropriate for Congress to regulate them.

We have recently seen other tendencies to increase jurisdiction, to push lines farther back, which were not so easy to justify. It has long been recognized that the power and the influence of the presidency have been expanding, at least since the time of President Franklin D. Roosevelt. I can well remember when President Hoover, quoting President Cleveland, sent a ringing message to Congress saying that local disaster relief was a matter for the states to handle and was not properly to be assumed by the Federal government, both because it would produce an influx of Federal officials where the states should do the job themselves, and because it would reduce the local sense of responsibility to take care of their own problems. Outlook on this has, of course, completely changed, and I do not know of anyone today who would want to go back to the old restrictive view.

In the field of foreign relations, the expansion of executive power has been especially great. It is fashionable in some quarters to blame this on President Nixon, but of course it goes back long before his presidency. It was President Franklin Roosevelt who armed merchant ships, carried out the exchange of destroyers for bases, and inaugurated Lend-Lease. If you want to look for precedents, though, the broad exercise of executive power in the field of foreign relations goes back at least as far as Thomas Jefferson and the Louisiana Purchase. President Truman utilized executive power to establish the Marshall Plan, and President Eisenhower engaged in operations in Lebanon and in the Dominican Republic. At long last Congress has taken

steps to regain a measure of control over such activities, through the War Powers Act which was enacted last July. To say the least, it will be interesting to see how this works out in actual operation.

Impoundments and Executive Privilege

More recently there have been other areas where there has been a considerable effort to expand executive power. These have been unfortunate, in my judgment, because they were not necessary, and because they sought to push a legitimate conception to such an extreme that the proper scope of the concept was seriously jeopardized. I am referring to impoundment, and to executive privilege. I think it is clear that both of these concepts have an appropriate place in our governmental system. There are many situations where it would be wrong for the executive to expend funds which had been appropriated by Congress. For example, money is expended to build a bridge, and the river moves before the bridge is built. Surely it would be wrong for the executive to go ahead and build the bridge anyway. Or Congress appropriates money for a particular activity thought to require a staff of 1,000 persons. Actually it develops that the work can be done with a staff of 800 persons. Surely there is no obligation to go ahead and spend the sum required to employ 1,000 persons. Usually, of course, departments find themselves with underappropriations; but overappropriations of one sort or another are frequently encountered and regularly dealt with.

It was a new development in our Government to have the President say he would not expend the funds appropriated for whole programs. I have always found it hard to support this, and have wondered about the President's constitutional duty to see that the laws are faithfully executed. I sympathized with the President's problem. Over the years, Congress has found it difficult to work out a way by which it could really exercise fiscal responsibility. All the avenues and procedures in Congress make it easy to make appropriations. There has been no means of overall view in Congress, no way to limit the aggregate amount of appropriations. Slowly Congress has moved to rectify this situation, though I doubt that it has moved far enough to meet its responsibilities. But it is for Congress to make the laws, and it is the function of the President to try to persuade Congress, and not to defy it.

What especially worried me about this situation was that it might invoke some sweeping decision which would impair the legitimate and essential function of the executive in not making expenditure of appropriated funds in proper cases. It may be that with the march of events we have avoided that risk. I hope that the more extreme arguments in this area will no longer be made.

The other area where there was for a time a considerable effort to expand executive power was that of executive privilege. Here, again, there is surely a proper scope for executive privilege. We have gone to extremes in recent years with the concept of "freedom of information." But anyone who has worked in government knows that there is a need for confidentiality of communication within an executive department. The head of an office should be able to receive recommendations and advice from his subordinates on a confidential basis. If everything written has to be viewed at the time it is written in terms of how this will look in the newspapers, subordinates will ordinarily write only very bland memoranda. Much of this, of course, proceeds on the assumption that the memoranda will be honest and legitimate. It also proceeds on the understand-

ing that the head of the office takes responsibility for what he does. He does not try to shift it over to subordinates.

However, over the past year and a half we have seen some extremely sweeping contentions made with respect to the legitimate scope of executive privilege. It was contended on behalf of President Nixon at one stage that he need disclose nothing, and that he could forbid any employee in the executive branch of the government from disclosing any item or information as the President might choose. This argument was pretty well disposed of by the decision of the Supreme Court last July in the case of *United States* v. *Nixon*. The risk which it presented was that it might jeopardize executive privilege in the cases where it should properly apply.

Expanding Action and Authority of the Courts

Another area where there has been a tendency to expand action and authority is in the courts themselves. The courts were early called "the least dangerous branch" of the Government, and they long saw to it that they played an essentially passive role in the operation of the Government. They sat to decide only cases and controversies which came before them in the normal course of judicial business. They did not decide political questions; they limited themselves to "justiciable controversies." They were not open to everyone who would like to have a question decided. They had a definite concept of standing before a question could be raised before them.

In recent years much of this protective structure has been swept away, and the courts have more and more reached out to decide all of the legal questions which can arise in society. For practical purposes today, anyone has standing to raise any question he wants to. All he has to do is join two or three other persons with him, call themselves the "Friends of True Justice" or anything else, and then seek an injunction or declaratory judgment. I really do not exaggerate. Recently, a group of students at the George Washington University law school, calling themselves SCRAP—Students Cooperating on Regulatory Agency Procedure—and no longer in existence when the case got to the Supreme Court, were held to have standing to raise questions about the propriety of an order of the Interstate Commerce Commission making a blanket increase in freight rates, including the rates on recyclable materials. That seemed to me to be a charade at the time, and I hope that the time will come when it will be recognized as having gone too far.

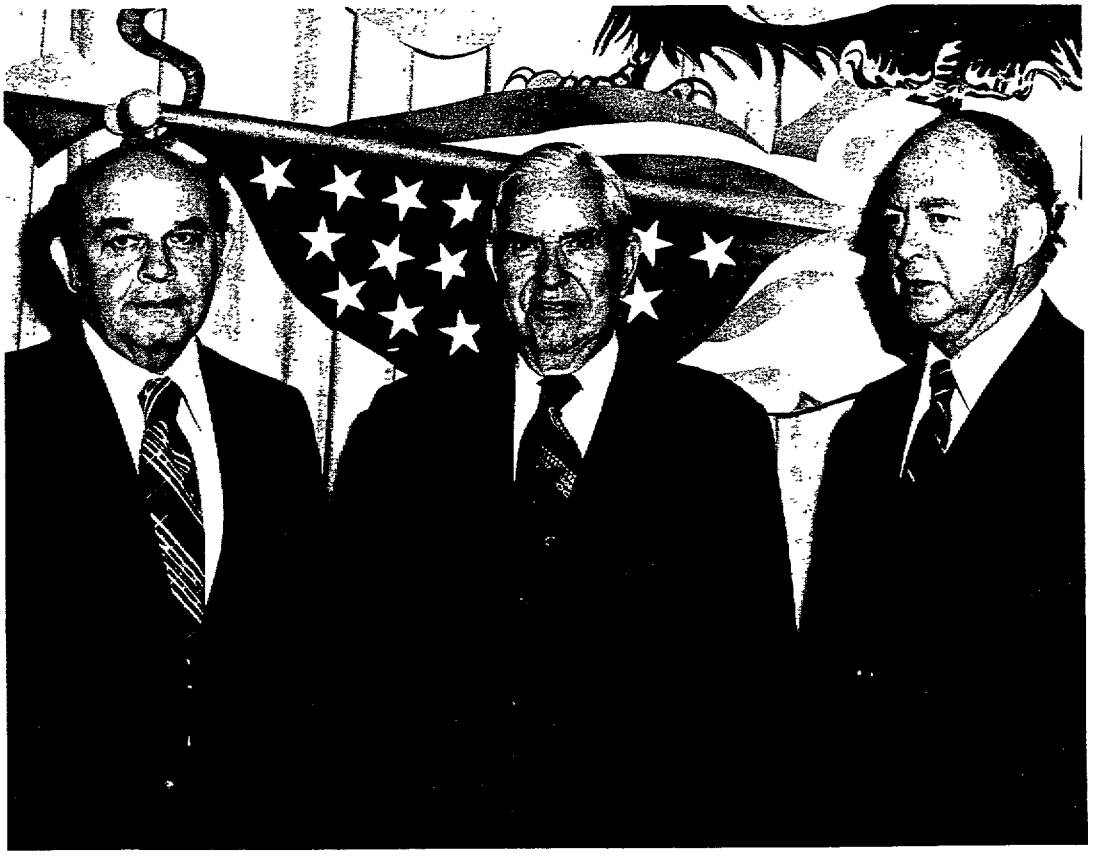
In other areas, courts seem to have little difficulty in feeling that they should make the ultimate decisions on most governmental questions. The thought that Congress has assigned the decision of these questions to other agencies, and that the function of the courts is not to decide the questions, but to see that proper standards and procedures are maintained, seems often to be forgotten. In this connection, I would mention something recently written by one of our most thoughtful Federal judges, Judge Carl McGowan of the United States Court of Appeals for the District of Columbia Circuit. In a recent book review of the new edition of the Hart and Wechsler book, *The Federal Courts and the Federal System,* Judge McGowan wrote:

> It would appear that the courts are being put in the position of supervising the performance of the Federal agencies in exercising responsibilities that Congress conferred in the broadest terms. . . . parties basically are requesting that the courts scrutinize and revise the merits of what the particular agency has done in carrying out its Congressional mandate.

This offers to the judge a very tempting opportunity to give vent to his personal views on how the country should be run, and even the most disciplined judge may succumb on occasion if his predilections are peculiarly engaged by the case in hand. There remain, however, serious questions about his qualifications for this role, and, indeed, whether he could not be employing his judicial time and talents in more appropriate ways.

Relevance to the General Accounting Office

What has all this to do with the General Accounting Office? Why have I thought it was appropriate to review these very general ideas in this talk in your lecture series? It is, of course, because this great agency, so essential to the sound operation of our Government, is constantly engaged in drawing lines, and because it may be subject, like other governmental agencies, to the temptation of seeking to enlarge its jurisdiction. Indeed, there was a very difficult question of line-drawing at the birth of the General Accounting Office. It is not widely recalled now that the Budget and Accounting Act of 1920 was vetoed by President Wilson, not because of any reservations about the agency but because the statute put limitations on the removal of the Comptroller General by the President. It may be that the questions which gave pause to President Wilson and his advisers have been resolved by the case of *Humphrey's Executors* v. *United States,* holding that the President could not remove a member of the Federal Trade Commission. But the question, as far as the Comptroller Gen-



Dean Erwin N. Griswold, lecturer at GAO on October 15, 1974, accompanied by Paul G. Dembling, GAO General Counsel (on left), and Elmer B. Staats, Comptroller General.

eral is concerned, has never been judicially resolved. President Harding did sign the bill in 1921, and the Office has functioned effectively for more than half a century. Only an academic would refer today to the question which existed at its creation.

There is a tendency sometimes to refer to the General Accounting Office as "an arm of the Congress." Indeed this phrase was used by Congressman Good in leading the unsuccessful effort to override President Wilson's veto in 1920. The phrase is used occasionally today in support of the position that the General Accounting Office has some special position of oversight over the operations of the Government generally. I would like to suggest that this is an error, and that the phrase should not be allowed to become a misleading symbol.

All Government departments are, in a very real sense, arms of the Congress. There would not be the Department of Health, Education and Welfare, for example, if Congress had not provided for it by statute, and specified its powers and responsibilities. Indeed, there would not be a Federal court system if Congress did not create it by legislation, as the Constitution provides. Congress has the power to legislate, and Congress has exercised that power in creating the General Accounting Office. But this does not make the Office any different in kind or quality, I suggest, from the other departments, offices, and agencies of the Government. To go further and say that the General Accounting Office has some broader powers of control over the executive departments raises some serious constitutional questions. For, great as its power are, Congress does not have "executive" powers, and any effort by Congress to give to the General Accounting Office overriding powers over the executive would be subject to serious problems in the field of separation of powers.

The role of the General Accounting Office is a very important one, but it is a role of audit, generally of post review, and it is not its function to make the basic governmental decisions. If it finds things wrong, it has a clear duty to report to Congress; and it can be extremely helpful to the executive departments if it advises them when it thinks that matters are not being properly handled. But it is not the function of GAO, as I see it, to make the basic decisions or to handle the matters itself.

Let me give two illustrations from my own experience. They are separated in time by about 40 years. The first arose when I was a young man in the Department of Justice in the early 1930s. At that time the Government was acquiring many parcels of land, and these were being handled by the Lands Division in the Department of Justice. One day I found on my desk the papers in a suit in the Court of Claims for just compensation for land which had been taken. On investigation, I found that this had been a negotiated taking, that there was no question as to the amount, and that the title to the property had been approved more than 18 months previously by the Assistant Attorney General in charge of the Lands Division, on behalf of the Attorney General. All of the vouchers had been prepared, but payment had not been made—with interest running against the Government—because, as I found, the General Accounting Office had set up a land division, and it was not authorizing payment until the lawyers of GAO had approved the title. I found that there were hundreds of these matters, and that the aggregate interest was substantial, not taking into consideration the mere factor of delay by the Government in paying its just debts.

Having found these facts, I went to then Attorney General William D. Mitchell. J. R. McCarl was the Comp-

troller General at the time, and Mr. Mitchell called Mr. McCarl on the telephone. It developed that Mr. McCarl was not informed about the activities of the land lawyers in GAO. Indeed, this may have been an activity designed with a sort of good intention to provide work for lawyers on the staff during the days of the depression. But it should be obvious that this sort of duplication of effort, before payment, was wasteful, and that the basic responsibility for passing on the titles was in the Department of Justice. If the Department was doing this badly, it was the function of GAO to ascertain that fact, and report it to Congress. But it was not the function of GAO to pass on the titles to the land.

With the understanding and cooperation of Mr. McCarl, this matter was worked out. I am afraid, though, that it has sensitized me to the risk that, for one reason or another, GAO may sometimes seek to go too far in undertaking to make the basic decisions of the Government rather than confining itself to its important and unique function of audit and review.

The other instance in my experience was the S & E case which came before the Supreme Court a few years ago when I was Solicitor General.[1] In that case, the Atomic Energy Commission had before it a contract appeal. It made a determination, in favor of the contractor. At that point, the disbursing officer forwarded the papers to the General Accounting Office, and that Office undertook to review the entire proceeding on the merits. It concluded that the award should not have been made, and refused to approve payment. As a result, the Atomic Energy Commission withdrew its award, and the contractor had no alternative but to bring suit in the Court of Claims.

[1] *S & E Contractors, Inc.* v. *United States,* 406 U.S. 1 (1972).

The formal issue was whether the Government was entitled to have an appeal from the decision of a contract board. This would not be unthinkable, and Congress might well provide for it where this was thought to be wise. In the tax field, for example, the Commissioner has always had the right to appeal from adverse decisions of the United States Tax Court, which originally was an administrative agency in the Treasury Department, known as the Board of Tax Appeals. But Congress has never provided for such appeals by the Government in contracts cases.

When the S & E case came before the Supreme Court, I found it difficult, as you will understand, to support the review of the Atomic Energy Commission's decision which had been undertaken by GAO. My objections were two —one theoretical and the other practical. The theoretical objection was that this is not the function of GAO. It is not its function to make the basic decisions for the Government. As I saw it, GAO should have drawn the line considerably short of the place where it was reviewing the merits of the decision made by this agency. My practical objection was that the action undertaken by GAO was not consistent with sound principles of Government, because it involved complete duplication of effort, with resulting delay both to the claimant and to the Government. The Supreme Court held that the award made by the Atomic Energy Commission was binding on the Government, and not subject to review either by the Comptroller General or by the Court of Claims. That, it seems to me, is as it should be, under the statutes as they stand.

It may be said that this is simply the Department of Justice line. It is true that views along these lines are embodied in a goodly number of opinions of the Attorney General, including Attorneys

General as eminent and as diverse as Harlan F. Stone and Ramsey Clark. It is also true that I have spent a number of years of my career in the Department of Justice, under four different Presidents and six different Attorneys General. I do not think it is accurate to say that there is a Department of Justice line. There is something to be said, I think, for the view that the position I have suggested is supported by sound statutory construction, and constitutional considerations, and by decisions of the Supreme Court, including that in *Miguel* v. *McCarl,* a case in which I participated a good many years ago.

The view is also generally supported by the commentators, particularly in Harvey C. Mansfield's book *The Comptroller General* (1939). He says that the issue "in disagreement" is "the Comptroller General's right to fix the scope of administrative discretion, and to substitute his own conclusions outside that field as he draws it. The opinions of the Attorney General consistently favor a wider latitude of discretion, are expressed with more restraint and on the specific issues read more persuasively" (p. 106).

Similar views are expressed in two more recent discussions—"The Control Powers of the Comptroller General" (56 *Col. L. Rev.* 1199 (1956)), and "The Comptroller General of the United States: The Broad Power to Settle and Adjust All Claims and Accounts" (70 *Harv. L. Rev.* 350 91956). So I do not believe that it is just a party line which I am expressing. Indeed, I sense that the controversy has simmered down a good deal, and that it is only occasionally that it rises to the surface now, as in the S & E situation. Still, I think it is worth observing that this is one of the many situations in law and government where the line should not be drawn too broadly.

Of course I recognize that these questions are not black and white. Important questions in government never are that easy. I recognize, too, that there are provisions in the law under which executive departments may seek advance rulings from the Comptroller General and that this often gets him involved directly in the business of governmental decision. I recognize, too, that from time to time Congress makes specific assignments to the General Accounting Office, and that in recent years the Office has been assigned areas where it is in fact the administrator, as in the case of election campaign contributions. My thought is only that there are dangers in such assignments, and that they should be minimized and indeed, in appropriate cases, resisted, in order that GAO may continue to be freely and fully available to perform its essential function of audit and review and report, functions which will indeed be enough to keep it very busy at all times, and for the sound performance of which all citizens, and Government departments as well, will be grateful.

DISCUSSION

If the Justice Department felt that GAO's results in the S & E *case were improper, why didn't they simply confess judgment?*

Dean Griswold: There were people in the Justice Department who thought it was appropriate to contend for what amounted to an appeal by the Government from an adverse decision of the Contract Board of Appeals. I suppose it lay in my power as Solicitor General, and incidentally, I had *no* power over it in the Court of Claims—I had nothing to do with it until it got to the Supreme Court. I was very doubtful about it when it got to the Supreme Court, and it lay in my power to confess error, though whether the Court would have accepted

that or not I don't know because they've made it plain that they're not bound by a confession of error. There were people in the Civil Division of the Department of Justice who felt very strongly that we had a good position to contend that we could, in effect, have an appeal from the decision of the Board of Contract Appeals. We did, in fact, oppose *certiorari* in the case, but, when *certiorari* was granted and the case was in the Court, I made some effort to try to have all views presented, including *that* argument—that is, that we were entitled to an appeal—in which I had no faith myself and therefore I didn't assign the case to myself for argument. We also, as you recall, included in the brief, material written by the Office of the General Counsel of the Comptroller General on the other issue, although I had even less faith in that than I did in the other point.

There were a good many cases a long time ago where the General Accounting Office steadfastly refused to authorize payments, suits were bought in the Court of Claims, and judgment was confessed. That era, as far as I can see, has pretty well disappeared and I think that's all to the good. I know that I was involved in the Philippine scout situation which was involved in *Miguel* v. *McCarl*. This case was actually a mandamus case, but there were at the same time a good many cases pending in the Court of Claims on the same issue. These were, in fact, a tremendous hardship. A particular case would involve $75, maybe $300, and to bring suit in the Court of Claims on such an amount, even if you have a lot of them, is extremely wasteful. I could go on talking about *Miguel* v. *McCarl* because I had quite a lot of interesting experience there, and I will mention just one thing, as a long answer to your question. I had in my office a captain in the Judge Advocate General's Office of the Army. At that time he had been 11 years a captain, which shows how things were progressing. I found he was very well informed. He had done nothing for 2 years but work on this case, and he had a briefcase filled with memoranda which had quite carefully briefed the law on all aspects of the case. I asked him if the Navy didn't have the problem, and he said, "Yes." I said, "Well, what do they know about it?" and he said, "I don't know." Well, I said, "Can't you find out?" He said, "That would take 3 months." And I said, "Why would it take 3 months?" "Well," he said, "I would have to write a memorandum to the Judge Advocate General, and he would have to write a memorandum to the Chief of Staff of the Army, and he would have to write a memorandum to the Assistant Secretary of War, and he would have to write a memorandum to the Secretary of War, and then he would transmit it to the Secretary of Navy, and it would go down the line." "Well," I said, "do you know the man in the Navy Judge Advocate's Office?" "Yes." "Well, why don't you call him?" "Oh, I'd be court-martialed if I did that!" To which I responded, "Well, can they court-martial *me*?" And he said, "No." So I got the name of the man in the Navy and called him up, and very quickly we had the information from the Navy. I dare say that that situation would be somewhat different now.

How do you stand on the idea of a National Court of Appeals?

Dean Griswold: I think that we have aimed our shafts at the wrong target so far in discussing this problem. We have talked a great deal about how the Supreme Court is badly overworked, and we must protect the Supreme Court against being so oppressed by 5,000 cases a year. Now, I happen to think that's true, but the argument is heavily undermined because a good many members of the Supreme Court vary from saying,

"Well, we can handle it," as Justice Stewart does—there's nobody who is more conscientious or works harder than Justice Stewart—to what Justice Douglas says, which is that "We don't have a fourth enough to do—it's a breeze—we've got lots of spare time." It is very hard to make the argument effectively that the Supreme Court is overworked, although if anybody will just look at the fact that they have 5,000 cases a year and will look at the nature of some of those cases, it is my own personal view that the Court is badly overworked and that to some extent we suffer from it. But I think that the real line of attack is not that the Court is overworked, because, after all, as far as the *merits* are concerned, the Court controls the number of cases it takes and today it hears something like 135 or 140 cases a year on the merits, which is the same number it heard in 1935 and in 1925. Those cases today are picked out of 5,000 cases, whereas in 1935 they were picked out of 1,100. I think the real target that we ought to focus on is that the country suffers from a lack of adequate appellate capacity.

The consequence of the high selectivity today is that up to 80 percent of the cases heard by the Supreme Court on the merits are civil rights cases. Now, I don't object to that at all; I don't regard them as unimportant—I regard them as terribly important. I think it is very important that we have a tribunal like the Court to deal with these questions, and I am sure it has done much to educate the public and to improve standards in many ways, but the bald fact is that, as a consequence of that fact, it is almost impossible to get a final, nationally controlling appellate decision on any business, commercial, tax, contract case—the kind of cases that made up 90 to 95 percent of what the Court heard 50 years ago. If you pick up a volume of *200 U.S.* and look through the kinds of cases that were there decided, 1 out of 20 will be the kind of case you have now. You pick up a volume of *414 U.S.* and you won't find a single one of the kind of cases which were what the Court *was* deciding in 1920. Now, it's fine to say, "Well, look, we've got the Courts of Appeals—they're pretty good; they've got some very able judges on them." But none of the Courts of Appeals at the present time has any kind of nationwide jurisdiction. You cite a beautiful opinion by Judge McGowan in the Court of Appeals for the District of Columbia Circuit, and it is hardly given advisory effect by the Seventh Circuit or the Ninth Circuit or the Third Circuit; the same question has to be argued over again there. Maybe, if a conflict develops some years hence, you can get it in the Supreme Court but actually the fact is that in many cases *certiorari* is denied even though there are clear conflicts today because the case isn't a civil rights case and doesn't have the kind of interest that is required to get a case into the Supreme Court.

Incidentally, many of the cases I am referring to are *not* of great public importance; they just have to do with how you apply the S.E.C. law, or they have to do with contract disputes of one kind or another, or other commercial matters —like, for example, the Hughes case, which came before the Supreme Court at the last term, 11 years after the Court had refused to take the case at an earlier time, and in the interval, enormous amounts of time were spent in hearings and some millions of dollars were spent in fees for various things in carrying out the hearing. Then when it was all done and the case came back to the Supreme Court, the Court decided that the hearings were all irrelevant and shouldn't have ever been held anyhow.

We ought to have some way that we have a subordinate court which is prepared to handle nonconstitutional ques-

tions on a basis of nationwide jurisdiction so that its decisions would be binding on all the Courts of Appeals. This would be a national panel and I don't care whether it's called the Court of Appeal or what. The way that appeals to me for the present is that all petitions would go to the Supreme Court, but the Supreme Court would simply grant about twice as many as it now grants. The Supreme Court itself would assign half of them for decision by the national panel. There would be a right to seek review from the Supreme Court—*by* the Supreme Court—from the national panel, but there would be every expectation that the Supreme Court would never grant such review except maybe once in 2 years—the way it grants review from the Court of Customs and Patent Appeals, about once in 3 years now—because the decision of the national panel would be nationally binding so there would be no question of confusion and conflict and it would not raise the kind of question on which the Supreme Court would rightly feel that it ought to have the ultimate, final word.

I think, just in summary, that we are *really* suffering today from a lack of adequate nationally binding appellate capacity, particularly in the field of general law, including business and commercial law; that we oughtn't to put it in terms of "the Supreme Court is overworked" because they can control their docket. But *having* to control their docket, they are required to throw out large quantities of cases which merit nationwide appellate review. One consequence of this, I think, is that there is a certain lack of discipline among the Courts of Appeals. The Courts of Appeals know blame well that the chances are very strong that their decisions aren't going to be reviewed, no matter what, and I think this increases their tendency to be a little more freewheeling than is really desirable in terms of a sound judicial system.

I believe in your talk that you said that in your judgment Congress had not yet done enough to responsibly control the aggregate amount of funds appropriated. My question is what more would you have them do?

Dean Griswold: I'm afraid that what I would have them do is probably something which there is no possibility that they (a) *will* do or (b) *can* do—which is collectively to exercise more self-restraint than they have in the past. I think, too, that I should answer that I am not thoroughly familiar with what they *have* done. I know that it represents a considerable improvement, and my statement was rather based on my skepticism as to what they will actually *do* under the statute, rather than what the statute said.

I just shudder when I stop to think what might happen after the totals have been set and a good effort is made for it, and some member whom everybody likes and who has a problem in the next election comes up with something which is terribly important to him. The chances that it will go through, despite the limit, seem to me simply in terms of human nature to be pretty great. If it doesn't actually work out that way—if they are able to enforce effective self-discipline—I will only be glad to eat my words and to say how happy I am.

You mentioned the principle of confidentiality. GAO has had problems over the years in gaining access to information in the executive branch for the purpose of conducting our audits. Would you care to comment on where the line might be drawn?

Dean Griswold: Insofar as the audit is a financial audit, I wouldn't suppose there should be *any* papers which ought

to be unavailable. By that I mean vouchers and authorizations and justifications for expenditures. This leads into the thing which I tried to refer to at the end of my talk. If GAO is, in fact, trying to come to a conclusion as to whether a department made the right decision on the facts, I have considerable reservations, as I have indicated, as to whether that's any of the business of GAO and I have some genuine concern as to whether memoranda by subordinates should be available to GAO. I don't have any question about the responsibility of the responsible Government officer, that is, the Assistant Attorney General or whoever he is, and whether he oughtn't to be required to justify what he has done within the proper ambit of the scope of *his* appropriate powers. I have great doubt as to whether memoranda of subordinates ought to be made available to GAO or anybody else. With respect to the merits of a matter, perhaps this is because I benefited greatly from years of full, free, and frank discussion by my associates with me in the Solicitor General's Office, and I am sure that would be impaired if these things were all subject to public scrutiny. You asked where the line should be drawn, and I think about all I would say is not as far as you would like to have it drawn.

I think it's a very hard question to answer in the absence of a specific concrete situation. If you've got a situation which is already known to be full of corruption, you've probably got a good deal more freedom in finding out about it than elsewhere. On the other hand, if it is just a general investigation on how the affairs of the office are conducted, I would draw the line somewhat narrowly on the ground that it is the function of the agencies to run the government, not the function of GAO.

With regard to furnishing information on how a program is being run to Members of Congress at their request, at what point do you feel we are going beyond our lines of authority when we try to ascertain what consideration was given by executive agencies when making their decisions?

Dean Griswold: I think I would say, generally speaking, you have no business to find out what consideration was given by the executive agency in making its decision. That's for the executive agency to determine. You weren't allocated that function. Here, again, it is very hard to answer it without a concrete case. I'm a victim of the case method, I guess. My view might well vary with respect to a particular specific situation.

I understand you've just returned from Russia and made an examination of the Russian legal system. Would you care to comment for a few minutes about what your observations were?

Dean Griswold: This is a subject on which I could proceed almost endlessly. I had a very remarkable opportunity. I was there under the same auspices that Elliot Richardson was there in July. I was the invited guest of the Institute of U.S.A. Studies of the Academy of Sciences of the U.S.S.R. Now, the Academy of Sciences—the closest analogy we have to it is the National Science Foundation here, except that in the Russian language and practice throughout Europe, science is defined in the broad sense of all knowledge—is not limited to natural science but includes the social sciences and law.

I was in Russia some 13 years ago, at which time there was an Institute of State and Law in the Academy of Sciences and that was the Institute where they studied government. One of the people there is a Russian named Nikiforov, whom we had as a Visiting Professor at the Harvard Law School in 1961 or 1962. Nikiforov was born in Tashkent

in 1913 and he had a Scottish nanny. Apparently they didn't know about the war out in Tashkent between 1914 and 1918 —at any rate, he had the Scottish nanny until he was 10 years old, and from her he learned beautiful English with a Scottish accent. As a result, he practiced law for a while, and since World War II he has made the United States his field of study and interest. Five years ago he and two or three others, with some political help, got to set up a new institute called the Institute of U.S.A. Studies in the Academy of Sciences. I suppose there are people over here who would call this a spy tank for the Russians and so on. I suppose maybe I was naive and was taken in, but actually I found it a very interesting study and a very interesting place. The closest analogy that I know is the Russian Research Center at Harvard which was started 25 years ago. There are a half dozen similar places at other American institutions, where there is an honest effort to try to find out what the facts are, what goes on, what people *think*.

At the Institute of U.S.A. Studies in Moscow, they now have about 100 scholars, of whom perhaps 40 are called professors. The others range from intermediate stage down to young people who attend the Institute pretty much like graduate students, and actually receive the equivalent of the Ph.D. degree after they've studied there for a while and have written a thesis. My wife and I were assigned two of these graduate students as our guides and interpreters. A 26-year-old man was assigned to me, and his specialty was the Department of Justice and, in particular, the advisory function of the Attorney General and the Solicitor General. He was especially interested in briefs *amicus curiae* in the Supreme Court, and so I conducted a seminar with him while I was there and I've sent him a great lot of material since I came back. The young lady was 24 years old, married, and has a child; her husband is in their Economic Foreign Service in Calcutta, but home on leave for 6 months. She knows more about the Internal Revenue Code than I'll venture anybody in this room does, including me. She asked me questions about percentage depletion and the investment credit and when I got all through it, I found she'd never seen the Internal Revenue Code. Her studies were almost entirely based on the books put out by the Brookings Institution in the *Studies in Federal Finance* series that Dr. Pechman has been the head of. As soon as I got back, I sent her a copy of the Internal Revenue Code. She also expressed interest in President Nixon's taxes, so I got a copy of the report of the Joint Committee and sent it to her.

I lectured to a large part of this group in Moscow. There's only perhaps a quarter of them who are interested in law. The others are interested in history and literature, economics, sociology. I also lectured to groups in Leningrad and a very small group in Kiev; the major one is the one in Moscow. I was very much impressed by the fact that it seemed to me that at least 80 percent of them had a very objective and scholarly approach to the problem. I don't mean to say that they weren't good Russians and convinced Marxists. But they were trying to learn and to find out, whereas when I was there 13 years ago, there was only an occasional person who seemed to me to be objective, and the rest were all constantly harping the party line, talking about imperialist aggression and wars of national liberation and all the phrases that were going on then. Now, it could well be they're good actors and they were just trying to pull the wool over my eyes. I did get one mildly hostile question from a person in Moscow who, when I got through and we had a question period like this, said, "Well, you've said a lot about the United States but

you haven't said anything about the influence of big business." At that point, I made one of those good answers, which when you're in court you always think of the next day and wish you had thought of at the time of the argument. I said, "Well, that's one of those things which it's easy for you to overestimate and easy for us to underestimate." I got quite a wave of applause from the audience; they thought that was a pretty good answer and they rather resented that he had put the question.

I also met with the Chief Justice or the Chairman of the Presidium of the Supreme Court, and with the Presidium of the private practicing lawyers in Moscow. There are, well, perhaps 100 private practitioners in Moscow and its environs —perhaps 45 in the city and 45 in the suburbs. I am in an office here in Washington which has 45 lawyers, and when you think that those are all the private practitioners there are in a city which now approaches 8 or 9 million, you can see there is not a very great scope for the practicing lawyer.

Actually, their courts, which are not dissimilar from the typical continental Roman law system court, with a judge and two lay assessors—which is standard practice in France and Germany, as well as in Russia—their courts, as long as the regime doesn't take the case out of court and deal with it somewhere behind the scenes—which rarely happens now—their courts are very well run, very fairly operated, and have, almost without exception, very unimportant cases, particularly on the civil side. On the civil side, they have adoption and family problems and questions about apartments, housing being a terrific problem there although much better than it used to be. In the past 10 years, they have built and opened 15 million housing units in Russia. These, of course, are apartments, typically two to three rooms, with three to five people living in the two to three rooms, but that's so much better than they would have otherwise that they feel rather pleased about it. The courts also have criminal jurisdiction, and the Chief Justice talked with me quite frankly about that. He said that they were fortunate that so far they didn't have much of a drug problem. As far as I could tell, that was accurate. But, he said, "We're having a very serious alcoholism problem, particularly with teenagers." He said, "This is apparently the drug of choice here now, and all kinds of bad consequences follow from it and we're not really making much progress in getting hold of it." I was interested that they would talk rather frankly that way and that their problems were different to some extent from ours, but not really so much different in kind.

It was interesting to be there after a gap of 13 years because there have been very great changes in the 13 years, and, generally speaking, it seemed to me for the better. The stolid, sad, almost hangdog look which they had while walking along the street in droves, as I remember it 13 years ago, has pretty well passed. They seem to me to stand straighter and look happier and certainly the women wore more colors in their clothes. There was little sloppy attire such as we have a good deal of. The young lady who was in charge of my wife came one day very proudly in blue jeans, and my wife—I think somewhat unfortunately—said that, "Well, they really ought to have a patch on them somewhere." 'Patch' was a new word to her and she got out her notebook and wrote down 'patch.' And this was the next to the last day we were there, but I'll bet her blue jeans have a patch on them now because they're very anxious to be in style and keep up with the West.

There has been a great increase in the number of private motor cars on the

road. They brought in a Fiat factory—it isn't called Fiat there but Fiat runs it—and practically all the people I encountered have their own cars now. I spoke to them and I said, "Well, you're soon going to have a terrible traffic problem and a terrible pollution problem." They recognized that that was very likely true, but as of now they'd like to have the cars and they're willing to face it.

I found it a very interesting experience. I found that the Russians are very much on the up-and-go. I got a feeling there was rather more unity among them than there is here, and I had a very strong feeling that, unless we watch out and handle things somewhat better than we have been doing over the past 5 or 6 years, we're going to wake up someday and find they're way out ahead of us.

Comptroller General Staats: Dean Griswold, we thank you very much indeed for being with us today on drawing lines. I'm sure we all recognize the difficulty of drawing these lines, and someone has said that if we literally tried to separate the powers as the Constitution provided, the operations of the Government would come to a complete halt. It's only because the framers of the Constitution were wise enough to realize that there had to be some accommodation among the three branches of Government that it has been so successful. We may have some difference of view as to where you draw that line—as it goes to GAO—but this divergence is healthy for us because we need to recognize that there *is* another side to this question.

Legal Study On Assistance to Turkey

I have again had occasion to refer to the outstanding legal study you prepared for me on October 7, 1974 on the question of military assistance to Turkey. I have been intending for some time to commend you for this extremely helpful work and I regret that it has taken me so long to do so. This study is the definitive work on this important question and as we again examine the executive and congressional actions that have been taken, it will be referred to constantly.

Please give my personal commendation to the lawyers who worked on this study under severe time constraints. Their assistance has been invaluable.

Senator Thomas F. Eagleton
to Comptroller General,
February 7, 1975

Carl H. Madden
Chief Economist, Chamber of Commerce of the United States

Dr. Carl H. Madden's career in banking and economics has been shared by government service, the academic community, and business. He began his career as a Research Assistant and Associate, Bureau of Population and Economic Research of the University of Virginia. In 1954 he joined the Federal Reserve Bank of New York as Chief of the Public Information Division and, during the following 6 years, served in several positions with that organization, including that of Assistant Secretary.

In 1960 Dr. Madden was appointed Dean of the College of Business Administration, Lehigh University. In 1962, he served as Economic Consultant to the U.S. Treasury Department and later as Economist for the Senate Banking and Currency Committee.

Dr. Madden has been in his present position with the Chamber of Commerce of the United States since 1963. He has been Chairman of the Conference of Business Economists and of the Business Advisory Council of the Labor Department, Vice Chairman of the Advisory Council on Federal Reports of the Budget Bureau, and a Council member of the National Association of Business Economists, as well as a member of the Decennial Census Review Committee.

Dr. Madden was graduated from the University of Virginia with a B.A. degree with honors in philosophy and holds M.A. and Ph.D. degrees in economics from the same institution. He is also a graduate of the Stonier Graduate School of Banking at Rutgers University and attended the Harvard Law School for 1 year.

He is co-author of The Economic Process, *a high school economics text published by Scott, Foresman, and of* Understanding Economics, *a 10-booklet National Chamber course for economic discussion groups. He is the author of other economic studies, including:* The Money Side of the Street, Exporting to Latin America, *and* Clash of Culture: Management in an Age of Changing Values.

Today's subject fits well with the theme of our lecture series which we have chosen to entitle "Changes and Challenges for GAO." We have been fortunate to be able to obtain for today's lecture an individual who has had an intimate acquaintanceship with the relationship between Government and business from several standpoints. He has been associated with two universities, including the deanship of the College of Business Administration of Lehigh University. He has served as Economic Consultant to the Treasury Department and Economist for the United States Senate Banking and Currency Committee. Since his association with the United States Chamber of Commerce as its Chief Economist in 1963, he has served on a variety of industry-government committees and business advisory councils to the Federal Government.

The General Accounting Office, as an oversight arm for the Congress, is called upon increasingly to review the effectiveness of Government programs which impinge directly on business or where business is a necessary partner in carrying out Federal programs. The Federal Government is the largest single buyer of goods and services from the business sector; it is called upon to regulate the activities of private industry in many areas; it has the responsibility for providing incentives through subsidies, loans, and technical assistance, particularly in the field of housing and for small and minority enterprises; and it sets the ground rules for trade and commerce among the States and with foreign countries. I could go on and list many areas on which our Office must make analyses, render conclusions, and make recommendations in all of these and many other fields.

At the moment, we are witnessing the beginnings of a new kind of relationship between Government and the private industry as we seek to conserve and develop our energy resources. GAO is currently preparing reports to the Congress on some 33 different matters involving energy resources, and only yesterday I testified before a committee of the House of Representatives supporting the establishment of a new Federal Energy Administration.

I have known our lecturer for many years. I have found him to be fair, articulate, and knowledgeable in the many facets of government-industry relationships. Importantly, he has the willingness and the capability to be equally critical of industry and government.

—Comptroller General

Changing Roles of Government and Industry

Dr. Carl H. Madden

What I would like to do this afternoon is associated with my work at the Chamber of Commerce. The economist for the Chamber has a responsibility to anticipate changes in the culture which may have a legislative or other impact on the business community.

The subject of business-government relations can be so broad in its scope that it would be very difficult to say much that is specific and meaningful about various aspects of this relationship. So what I am going to do instead is this: I'm going to make an argument about the nature of social changes which are impinging on the business community. I am then going to discuss how these changes are affecting business and finally, I am going to discuss how the changes in business attitudes and practices, if they come about as might be expected, will be changing relationships between business and government. And then, during the question period, I'll be glad to try to answer questions which are more specific, or to make comments as to how the thesis that I am developing might apply in a particular area of business-government relations.

In the first place, it seems to me that, when one asks the question, what is causing the changes in people's values that is occurring before our eyes, the best answer is the scientific revolution through which we are living.

I recognize that this is an obvious point, but it has seemed to me from past experience that a little development of this obvious point gives some sense of the scope of the statement, and the large-scale implications of the statement. So I will give you some examples of what I mean in order to get your psychological consent to the significance of what is in fact a cliche by now.

Harlow Shapley, the astronomer, listed what he considers to be the 10 most far-reaching achievements of 20th century science. They are (1) the knowledge of the chemistry of life's origin, (2) cosmic evolution from neutrons to man and beyond, (3) relativity theories, special and general, (4) the corpuscular sciences, the subatomic world, (5) automation and computers, (6) space exploration, (7) galaxies, quasars, and the expanding universe, (8) medical triumphs conquering major diseases, (9) molecular biology, the understanding of the genetic information code through an understanding of DNA, and (10) the exploration of the mind.

If one thinks about the picture of the universe that is created on the part of people who have some knowledge of this scientific revolution, that picture is, in a revolutionary sense, different from the picture of reality in the mind of people who have lived before this scientific revolution. In a most oversimplified way, but

in order merely to make the point vivid, let me state in the briefest fashion some of the aspects of this picture.

We believe in the 20th century as a result of these discoveries that we live in a universe which is at least 10 billion years old and possibly much older, maybe 50 billion years old, composed of uncounted millions of islands, universes, or galaxies which travel away from one another at varying speeds, some close to the speed of light. We now believe, on the basis of this scientific evidence, that evolution includes the entire cosmos, galaxies, stars, comets, and atoms, and indeed all material things. We know that, within an ordinary galaxy of about 100 billion stars that stretches from 100,000 light-years from edge to edge and that is about 20,000 light-years thick, our quite ordinary sun is about 30,000 light-years from the center, slowly circling this ordinary spiral galaxy for the past 4 to 4½ billion years. We know that our Earth is only an interesting detail of this sun's planetary system. We know that life arose about 3½ billion years ago out of demonstrably natural conditions on this earth. We know that although man or his erect relatives have lived on the earth only 2 to 4 million years, the dinosaurs reigned for about 200 million years. And we know something about the processes by which this evolutionary process developed.

You ask what difference that makes to people's values? I think the difference it makes is to change, profoundly and irreversibly, the viewpoint of educated people, the dominant educated majority in this society, who are familiar with this knowledge, as to the nature of creation, the nature of God, the role of mankind or humankind in the creative process, and the risks involved, both short run and long run, in the survival of the human species on earth.

I think that it is thus that statements such as that one by Julian Huxley, the biologist, become persuasive in the public mind as they contemplate questions of the relationship between environmental policy and economic growth. Julian Huxley said that we live in a period when the present threatens the future. Of course what he meant by that is that although it took mankind 2 million to 4 million years to reach a population of 1 billion, it took only 112 years to reach a population of approximately 3 billion. And it would take at the present growth rate somewhere between 30 and 50 years to reach 5 billion.

This intellectual revolution has compared the history of mankind to the stage of technology in which he lives and it has found three major periods—food gathering, agriculture, and industrial. The world population ceiling for man as a food gatherer was only 20 million, and it was reached in the old Stone Age or Paleolithic period 600,000 years ago when it took 2 square miles per person in the limited areas suitable for gathering and hunting to support a single individual. The second stage, beginning about 6000 B.C., brought the agricultural revolution which raised the population ceiling of the world to 1 billion. The highest estimate of a population ceiling for the industrial age has been made by the geochemist, Harrison Brown, and stands at about 50 billion, assuming worldwide industrialization, nuclear and solar power, and all technology now foreseen. Brown concludes that 50 billion people could live in a vast world megalopolis eating food supplied mainly by algae farms and yeast factories and using technology employing vast amounts of energy to process mostly air, water, and ordinary rock. At present world population growth rates projected ahead, the world would bump against this ceiling of 50 billion people in only 150 years.

It seems to me that, when one reflects upon the power of the new picture of the universe portrayed by 20th century science, and when he also considers that the social scientists have achieved their own innovations and discoveries of great significance in the 20th century, he can see that the change in human values, which lies behind movements such as the environmental movement and concerns such as the responsibility of corporations in pursuing their activities of satisfying human wants, is of an order which is surely parallel to that of the Renaissance. Indeed, in the view of some economists, such as Kenneth Boulding, it may very well require a change in attitude on the part of human beings that comes along in his opinion only once every 25,000 years.

So, when one discusses the question of the change in business-government relationships, he can indeed portray this change in terms of this decade compared with the decade past and the decade to come. But in my opinion, such a comparison is far too timid in its perspective if one does consider only for a few minutes the notion as barely outlined here that we are living through an intellectual revolution of the scope of the Renaissance and possibly of even greater scope.

Importance of Concern for the Environment

In this interpretation, the concern about the environment has the importance that the discovery of the notion of productivity had for the beginning of the industrial age. What we are learning is that waste and pollution are an inevitable concomitant of any kind of economic process and that the task of our generation and generations to come, if we are to maintain the degree of technology of our present civilization and not fall back from some catastrophe to a lower level of civilization, is to produce output with decreasing concomitant amounts of waste and pollution.

If I may illustrate that point in the following way, perhaps it will be clear. When Reverend Thomas Malthus discussed the question of the relationship between the food supply and the growth of population, he in effect discovered what economists refer to as the production function. He discovered and drew attention to the fact that output in an economic system depends logically and implicitly on inputs of resources. That is to say, output is a function in a mathematical sense of input. What he didn't understand was that it is possible to shift the production function; to shift the relationship between output and input in such a way that one can get more output from a given amount of input, and that, of course, results from increasing the rate of productivity growth, or increasing productivity.

The parallel discovery for our age might be expressed this way. We have discovered that there is an equally implicit and unavoidable relationship between output on the one hand and waste and pollution on the other. If one defines a commodity as something which is both scarce and useful, then one can define a negative commodity, a negative economic good, by parallel, as something which is both useless and also plentiful. One might call this a "nood." If one defines a stockpile of goods as being wealth, one might by parallel define a stockpile of noods as being crud. The problem of our generation and generations to come, having discovered this relationship, is to shift the crud function; that is to say, to get a given amount of output with less waste and pollution than was associated with that output in times past.

I think the scientific fact is that there

is no way to produce output without some waste and pollution being associated with it. This has its legislative implications: for if legislators do not understand the inevitable physical relationship between output on the one hand and waste on the other, they may be tempted to legislate waste and pollution away, and thus follow the apocryphal practice of the Colorado Legislature in the middle of the 19th century which found it inconvenient that Pi was equal to 3.1416. So it passed a law that in Colorado hereafter pi should be equal to 3.0000.

One can tell how that natural law operates by noting that, after a certain percentage of waste and depletion are out of an industrial or economic process, then the marginal cost of getting an additional amount of pollution and waste out of the process begins to rise exponentially because of the increasing difficulty of trying to approach what is physically impossible.

The consequence of this new scientific understanding is that, in my opinion, it is going to be changing the basic content of the concepts of economics. What concepts? At least these four: productivity, and therefore, income, wealth, and cost.

When the basic concepts of a subject matter find their content changing, one is in a period of social alteration which is not typical for an age in which people's basic presuppositions are accepted without question. In fact, I am beginning to believe that to a large extent there may be, as a consequence of these new discoveries, a poor understanding, both in business and in government, of what wealth is. This is an extraordinary development after a period when the world has seen a growth of wealth that was unprecedented in its history.

If one thinks about the discovery that I have just portrayed for a little while, he might ask himself the question whether an increase in output does not simply increase waste and pollution at a faster rate. He might then be led to the question as to whether there are not limts to economic growth, and that's exactly the question raised by Forrester and Meadows and the Club of Rome.

If he thinks a little further—at least it is my contention—he is led to ask the question, "What is wealth?" and he is led to recognize that it is possible that this is something that we do not understand well.

Limits to Growth

Surely it is true in a biological sense, or a physical sense, that there is a limit to the growth in numbers of any physical entity on the earth, starting with bacteria, going through fruitflies, and perhaps ending in Volkswagens. Surely, however, there is some numerical limit to the growth in the number of such physical objects that can exist on the earth. This law of retardation is well known in biology. But wealth does not necessarily imply growth in the number of physical objects. Wealth consists of a growth in value. Furthermore, there is an aspect in wealth which is in a sense intriguing and strange—it is that the value of a commodity conceived of either as a physical object or as the services from some human being is expressed in accounting as the present discounted value of a future stream of services flowing from that object. In that specific sense, wealth is not concerned with the past. It is concerned with the future. One of the great problems of any wealthy society is the means by which to devaluate past wealth which has less and less future value. You are all familiar with that in the concept of depreciation.

I would suggest that we have a lot to

learn about that concept over the next generation, and that to the extent that we are successful in learning about it we will increase the wealth available without encountering the problems of the limits of growth.

Sources of Future Wealth

As I think about the question, and I concede this is only an argument of mine, there are only two sources of future wealth. One is energy and the other is knowledge.

In this sense, capital goods in a physical sense are most appropriately thought of as congealed knowledge. To the extent that the knowledge congealed in a capital good has been supplanted, that capital good should be devaluated.

There are many examples of the sense in which a strategy for our society which pursues wealth in the two senses might be appropriate for this time of epochal change in people's beliefs.

One strategy would be to bring more useful energy to our activity. That gets us into the entire question of energy, the fact that we use energy with only 50% efficiency in a physical sense and less than that efficiency in an economic sense, the fact that we are the most profligate people on the earth in using energy in respect to transportation, and in the design of buildings, the layout of communities, and the suburbanization of our society. To this degree, the immediate energy shortage may be one of the great learning experiences available to our society.

The second idea brings me closer to the relationship between government and business and to the role that each may need to play in the coming years. That is the application of knowledge to our activities which would eventuate according to this argument in an increase in wealth not liable to the constraints of the limit to growth.

Carl Deutsch and Paul Senghaas, two social scientists, made a list of the major discoveries in the social sciences in the 20th century. The list covers two pages. In other words, those who assert that there has been no advance in the art of politics or the science of politics in the 20th century, or those who assert with Daniel Patrick Moynihan that the social sciences have nothing to contribute to policy making, may very well be reflecting their own ignorance more than they are reflecting an understanding of the nature of the discoveries in the social sciences.

From the viewpoint I express, what is most impressive about our society now is its lack of understanding of the wealth that could be created by a more systematic application of science to social affairs. I think that's where you come in. I think I am trying to make the case for your coming in with advanced methods, with the breadth of understanding, with the preparation for long-term success, with the recognition of the sense in which policy analysis is knowledge and has value, and with a sense of the scientism, if you will, that is involved and should be involved in social affairs in a society such as ours.

It is considerations such as I have just laid out that lead to changes in human values which call for people demanding a higher quality of life, and that is my second point. People are demanding that business produce not only quantity but quality. They are, in the words of David Rockefeller, more and more demanding a revision of the social contract.

What Is the Quality of Life?

What is the quality of life? Well, it is one of those phrases which has such

great power to persuade people partly because it is ill-defined. But as one can attempt to define it, it certainly includes, first, a livable environment. Second, it includes an acceptable minimum and steadily rising access by everyone to the goods and services of the economic system. Third is the concept that each individual should be given opportunities to fulfill his potential. Fourth is surely consumer protection. Taken together, these concepts create a new ethic for American business.

That new ethic has been summarized in a statement by Donald McNoughton, the chairman of the board of Prudential Insurance. McNoughton says," God did not give the corporation its charter." In the 19th century, the corporation attempted to give people what they wanted by producing physical goods and a few services in order to increase the physical standard of life for the American people. Then, McNoughton said, in doing this, the corporation invented systems of economic measurement. In the current period, says McNoughton, corporations will have to provide social as well as economic values to people. So, he calls on corporations to invent new systems of social measurement. In my opinion, that process of invention is going on and it will profoundly affect business-government relations.

Here are some examples of that process, as I see it, that represent an attempt to invent new forms of social measurement. I will simply list these processes that are going on now as illustrations of the point.

First is the development of environmental indicators, which, within a decade—and no doubt, if the recommendations of the National Academy of Science are carried out—will take place on a worldwide basis in real time and continuously. We all are acquainted with the satellite which is already developing the data from which new systems of environmental measurement that are worldwide in scope can be brought to bear on human activity in the world.

Second is the development of social indicators. It is a great surprise for some to discover, for example, that the First National Bank of Minneapolis is concerned in its annual report for 1972 about the infant mortality rate in the Minneapolis-St. Paul metropolitan area. But it follows from modern location considerations.

Large corporations today, in making location decisions for their head offices, are just as much concerned about the quality of life, including the infant mortality rate, in the areas in which they choose to locate as they are concerned about the tax system, and the labor pool, and the more classic economic considerations of the past. And so, a progressive bank in one of our progressive metropolitan areas is now systematically attempting to evaluate these qualities of social life, not out of philanthropy or out of good citizenship alone, but out of self-interest, because it recognizes the change in the nature of the corporation.

Environmental indicators, social indicators, technology assessment, some of the aspects of consumer measurement that we see now, and other such measurement systems, in my opinion, will be developing over coming years. It may very well be that the Comptroller General's office is one of the sources of invention of such systems of measurement, and is an evaluator of the performance both of businesses and of government agencies in achieving social values that are measureable. Indeed this is an activity that I would urge be developed in such a distinguished organization as the General Accounting Office.

Accounting for Public Goods

I furthermore think that there is a similar revolution that will go on in accounting, and that the concepts of accounting are in for a change. One reason that I think this is that I do not understand how accountants can handle at all the idea of public goods. Since the basic accounting equation is that assets equal liabilities plus net worth, or plus something else, the fundamental assumption of that equation is that cost and revenue rise, or that asset value and debt or debt-equivalents rise *pari passu*. However, let me give you the definition of a public good. A public good is something which once produced has no marginal cost for additional users. How do you account for that? I mean, how do you put it down in the books. A poem, a song, a mathematical theorem, a TV program, and other such goods are public goods. I'm not sure we understand how we account for them, either in economics or in accounting. However, I believe that a larger proportion of our total output may be in the form of public goods in the future than it has been in the past.

Likely Changes in Business Management Style

What is the consequence of the concern about the quality of life to the management of American businesses—many of which are multinational in scope—as time passes? Let me read you a list of the changes in management style that are likely to come from these developments. I will read you this list of future management practices that are expected by scholars to come from this change:

1. Profit still dominant but modified by the assumption that a business manager has other social responsibilities.
2. The application of both an economic and a social measure of performance.
3. Changing the emphasis from quantity to quality.
4. A permissive democratic management.
5. Long-range, comprehensive, structured planning.
6. A Renaissance manager replacing the old entrepreneur.
7. A corporation in which people become dominant rather than subordinate.
8. The substitution for financial accounting of both financial and human resources and social accounting.
9. The requirement of an ombudsman.
10. Decentralized and small group decisionmaking.
11. Concentration on the external rather than the internal ingredients to company success.
12. Instead of the dominance of solely economic forecasts in decisionmaking, major use of social, technical and political forecasts as well as economic forecasts.
13. Business, instead of being viewed as a single system, will be viewed as a system of systems within a larger social system.
14. Instead of a business ideology calling for aloofness from government, business-government cooperation and convergence of planning.
15. Change from a business system which has little concern for the social costs of production to a business system with increasing concern for internalizing social costs of production, both here and around the world.

Consequences of the Intellectual Revolution

What are the consequences of this intellectual revolution, its impact on human values, and the change in corporate style of management caused by the concern over the quality of life to the subject of business-government relations?

Well, in the first place it seems to me that government and business will become more closely associated in the pursuit of common purposes. If we are to avoid a life entirely dominated by government, in my opinion, we will have to turn to ways of inventing means for private corporations to operate in order to fill public services and goods. In this sense, I think the original effort of contracting out of the 1960s properly could be looked upon as a first effort, as an experiment which should continue. The most interesting work I know of in the country done on this is the work of the Citizens League of the State of Minnesota, which has a scheme developed to arrange for the contracting out of more and more public goods. Of course, such contracting out would have an intimate connection with the responsibility of organizations at every level of government analagous to the General Accounting Office. Such offices would have to develop measures of effectiveness of the performance of contracts in which private corporations performed public services or produced public goods.

A second implication—it seems to me that the growth of the multinational corporation places us today in the same situation as we found ourselves vis-a-vis the national corporation in the 19th century at about 1880. There are many unsolved questions that are going to be plaguing the multinational corporation and its relationship to government. Here are some of these questions:

1. Should a multinational corporation, and could it, be anational in its attitude towards management? If not, what accommodation can this corporation make with the various nation states in which it operates?
2. Who is going to own this multinational corporation? What laws are going to provide for access to its ownership?
3. How will the corporation mediate between the national interests, which conflict with one another, of various nations in which it operates?
4. How will the multinational corporation face the change, the secular change associated with its development I have described, in which the bargaining power of the raw materials-producing countries rises vis-a-vis the bargaining power of the manufacturing countries? In the era, in other words, when the have-not nations become the haves, and the have nations will become the have-nots?

There are other such questions concerning the role and status of the multinational corporation which have creative aspects and destructive aspects. The creative aspect in my judgment is that the multinational corporation may be the vehicle by which an obsolescent nationalism on spaceship earth will be supplanted piece by piece and in a manageable fashion. On the other hand, antagonism over the operation of the multinational corporation as between one nation and another may very well lead to temporary but profound and coordinated economic slowdowns in the world as a whole. One of the great dangers in the increasing interdependence of the world's economy that is the result of multinational corporations can be seen in the present energy crisis in which we have a coordinated and syn-

chronized movement of national economies toward prosperity on the one hand and toward recession on the other. And so a recession is no longer limited to one country but the chance of its being worldwide is increased.

Another issue of government-business relations that I think is very profound and unresolved that will have to be addressed as a consequence of the developments I have described is the issue of the size of corporations and the nature of competition, both nationally and internationally. One group, in the reformist legal tradition, advocates now the breakup of large U.S. corporations. But the fact is that foreign corporations are growing at a faster rate than U.S. corporations. If the rate continues, at about double the rate of growth of our corporations, over another 5 years, then the largest corporation in the world would no longer be U.S.-based, but would be based elsewhere. If the anti-trust tradition in the United States persists in interpreting anti-trust behavior on a strictly domestic basis, in an economy which is more and more worldwide in market relationships, how many errors will we make of economic policy in a world which is growing more interdependent and more competitive and in which more and more market relationships are in fact international? In respect to economic theory as applied to anti-trust, how long will we persist in maintaining that the only appropriate basis of competition is price competition when, in all evolution except our theory of economic evolution, it has been differentiation—that is to say, the genetic mutation—which has characterized the competition of the species and the survival of those adapted to the conditions of life? We do not have an evolutionary view of economic processes in the United States; in fact economic theory is the last of the social sciences to advance beyond the mechanistic view of Newton and differential and integral calculus. In other social sciences, the power of the 20th century idea of evolution and other such ideas has been much further advanced.

Need for New Concepts of Regulation

Finally, I would say that with respect to regulation it is my opinion that the creative power of the approach represented by the independent regulatory agencies and commissions is at an end. To put it in its most brief terms, and in relationship to the argument I have been making, the independent regulatory agencies are a huge mess and should be supplanted. Most economists and many others have reached the conclusion that these agencies are misconceived for the nature of the economy within which we live, where we have cumulative technological change and the growth of whole new industries which supplant existing industries. Thus, we find the ICC pretending that the railroads are a monopoly and will live forever. Thus we find the Federal Communications Commission pretending that AT&T is a monopoly and will live forever. And so on and so on.

Second, these regulatory agencies, as scholars know, easily become good guys when they are between the rock and the hard place, and turn themselves into cartels for the regulated industry.

Third, they descend, in absurdity, to attempting to define such commodities as peanut butter in terms of the amount of fat in the peanut and all that jazz, to the infinite boredom of the consumer, who can decide for himself which brand of peanut butter he really wants and what differences does it make anyway?

And fourth, there is duplication, delay, and red tape which gets increasingly difficult, stultifying and costly for the society.

I don't know what is the appropriate new theory of regulation, but it is entirely possible, I believe, that in organizations associated with the Congress, such as the office of the Comptroller General, there could be studies made of the consequences of regulation and the considerations involved in changing those concepts that might be of great value to the future.

Summary

Well, this is the end of what I have to say. I have tried to say something simple in structure, but profound, in my opinion, in importance—and worth thinking about on the grounds that from time to time at least the important should take precedence over the urgent.

We are living in a scientific revolution of at least 300 years in scope and possibly even greater, and this revolution will change and is changing the fundamental human values of our society. In response to these changes, the corporation is becoming a social as well as an economic organization. As a consequence of this development there is a searching process going on in which we are attempting to redefine wealth in such a way as to escape the constraint of the limits of growth, both of population and of physical objects produced by man. This process will attack and invade the basic concepts of economics and accounting. And in the process of developing new systems of social measurement, by means of which to evaluate performance, the relationship between business and government will change—hopefully in a creative way—such that private corporations which are pursuing a limited social and economic purpose can contribute clearly to the quality of life as the citizens see it, and their performance, when they are producing goods that are public in nature but privately produced, can be evaluated and measured effectively by government.

We need now a government which understands this revolution and understands the laws of nature which lie behind it. It would be a government that does not legislate physical and biological impossibilities. Instead, government would reorganize the concepts of business regulation to eliminate the obsolete approach which was our first stab as a civilization at this question as technology increased the scale of operation of our economy. It would be a government that instead recognizes the evolutionary character of economic activity and therefore the need for creative regulation, giving personal incentives to business corporations to produce what people want and not interventionist regulation which, in an effort to control something called power, stoops to consider the composition of fly rods and peanut butter.

DISCUSSION

Did the Chamber of Commerce anticipate the present energy crisis?

Dr. Madden: In 1971 the Chamber published a report called the "Growing Energy Shortage" and there were feature articles in *Nation's Business* on the energy question. We were prompted to produce that report by—guess who?—the oil industry. So, I would say, yes we did anticipate the question to some degree, but I would also have to say that, when President Nixon published his energy message earlier this year, an astute Washington observer said, "It is a reasonably good message and should have been delivered by President Lyndon Johnson 7 years ago." So while we anticipated it, we didn't anticipate it as much in time as we should have.

Do you think the energy shortage is serious?

Dr. Madden: There are three parts of the energy shortage. There is the short-term problem which is fundamentally a supply problem, a logistics problem. The degree to which it is serious depends on the length of the Arab boycott, which reduces our supply by 2 million barrels a day plus the impact on other countries of that shortage that is estimated at 1 million additional barrels a day. So there is a shortfall of 3 million barrels a day out of 17.4 million that we use a day. That's the first factor—the length of the boycott.

The second factor is our response to the shortage. Will we cut back gasoline consumption by the amount needed to avoid having to cut back industrial production and therefore precipitate a recession that would be graver than otherwise?

The third question is how much confidence does the consumer have in the measures taken by government? If the consumer's confidence is low, then he will respond probably by cutting back in purchases and induce the recession that could have been avoided. These are the three aspects, then, of the short-term question.

As for the medium-term question, we would have been short of energy, as our Chamber report pointed out, without the Arab oil boycott, and we should have been doing something about it. We know that because of this shortage fuel prices are going to rise. We have had a period of cheap fuel prices for electric energy and also for gasoline over the past decade. That trend would have been reduced without the Arab oil boycott. We must spend much more money and time and energy in research on energy questions. And we must spend large sums of money if we are to avoid increasing dependence on Arab oil supplies. If we continued our practices before the Arab oil boycott, it was estimated that by 1985 we would be importing 50% of our oil from the OPEC nations. And that, of course, would be bringing them something of the order of $100 billion of revenues. Any such rate of importing oil from the Arab countries would create balance of payments problems, problems of capital flows around the world, problems of what the Arabs will do with the money, etc. So, self-sufficiency is very important.

Also, of course, we have been profligate in using energy. We have grown up as a cheap energy nation and we simply have to change, under any circumstances, Arab oil boycott or no Arab oil boycott. Furthermore, implicit in the argument that I made is the idea that we must be much more conserving of energy, because of the impact on the environment and also because of the long-run relative pricelessness of fossil fuels. In a certain long-run scientific sense, we shouldn't even be using fossil fuels for either heating or transportation because of the enormous value associated with the long process by which nature produced these fuels. They are so valuable for petrochemicals and for lubrication and for other more exotic uses that probably the time is arriving when it is less and less appropriate to use these in the consumption of fuel.

In the long-run sense, we have problems to face that are puzzling in the extreme. As the geochemist Harrison Brown points out, we can live in very much increased numbers on the planet, which if we don't change our birth practices we are going to get faster than we want, and we can live in gigantic megalopolises, where a front porch is a luxury of the past, and a garden is the province of the super rich. We will eat what comes from yeast factories and algae plants and we will indeed process ordinary rock and granite with enormous amounts of energy, raising the question

Dr. Carl H. Madden, Chief Economist, Chamber of Commerce of the United States, GAO lecturer on December 12, 1973 (second from left); on left, E. H. Morse, Jr., Assistant Comptroller General; on right, Elmer B. Staats, Comptroller General and Donald L. Scantlebury, Director, Financial and General Management Studies Division.

as to whether the increase in the consumption of energy, given the greenhouse effect, will or will not raise the average temperature of the earth and therefore threaten the inundation of coastal cities as the icecaps melt.

Will we continue, in other words, this kind of crude technology for another 150 years, or will we learn to use technology with some grace? And will we learn to appreciate the sense in which we can attribute as being wealth those amenities which are now considered to be public goods, such as clean air and a place to walk and green space, and no busing, because people live together, and different races and different income groups, and so on and so on?

That's exactly the sense in which I was trying to convey, that in the longer run sense what we most need in this country is a better understanding of what wealth is—the sense in which value and wealth may have to grow, to appreciate, in terms of new knowledge and new services.

Let me give you two or three examples because that is such an abstract statement and it sounds like so much bull.

There is nothing to stop us from having within 5 years a world television university. Think about it. Nothing to stop us. We've got the technology and we've got the talent. All we lack is imagination and a sense in which such an organization would be wealth producing. Now we can spend $50, $70, $90 billion on defense, because our old fashioned virtues say that security from our enemies is wealth. But who knows? You see, we can't protect ourselves from them, no matter how much we spend. And they can't protect themselves from us, no matter how much they spend. We can't take a little dinky old country away from them no matter how much we spend, and they only take countries away from

us when they avoid wars and have instead guerilla movements and such. So the nation state, in this sense of protecting itself, is obsolete. It's as obsolete as the medieval castle, whose walls were never shot down because it wasn't necessary to shoot them down.

Another example of such wealth: Peter Goldmark, a scientist, proposes to wire small towns to big cities three ways —cable TV, TV cassettes, and microwave transmission. He says he can bring the same specialized services to the little towns as the big cities now have, and therefore slow down the migration of people from the small places to the large ones. Would that be wealth? Well, we don't know quite how to price it.

There are other such examples that I could give you if we had the time, but that's what I mean by a new understanding of wealth. Will it or won't it be considered evil, in a highly sophisticated age, for a man to go around in a 2½ ton car to move one guy from one place to another at 8 miles to the gallon. I would predict that, within 5 to 10 years, that will not only be considered or thought of as babbitry—it will be considered positively evil.

Will the airlines continue to cut back with the approval of the government as a consequence of the energy shortage? If so, what effect will that have on the economy in the short run and on the market system in the longer run?

Dr. Madden: Who knows what would be required? I can't do more than estimate how long I think the boycott will last and what it will do to the economy, but it could be worse than what I estimate. My estimate is around 6 months for the boycott. But more likely more than less. I disagree with Otto Eckstein because he is on the other side—he thinks more likely it will be less than more. But it's anybody's guess, because it's a political negotiation question and it's impossible to predict those.

Second, one would have to look at the economics of the airline industry. They've been flying at 50% seat capacity with redundant routes and redundant flights, and it's very likely to increase their profits for them to cut back as they have been doing. It's a very small sacrifice for the traveler because the airline routes were arranged with intense concern for the convenience of the traveler, especially the traveler between the small town and the big city, the feeder route, and so I think cutting back numbers of flights is not a very definitive proxy for what in fact is going on. I am personally optimistic about the impact of this on the traveler. Employment in the airline industry, of course, is a very great problem for those who are laid off. I think if I were in power personally, I would favor some sort of emergency arrangements for compensating those who have been laid off.

If one looks at the wage and price control phenomena of the past decade, starting with the guidelines of 1962, which in turn were a response to what was seen in the steel industry in the late 1950s—that is, low capacity production with no price declines—one sees a society, in my opinion, which is very, very ambivalent concerning what to do with concentration of power in the labor unions on the one hand and the large corporation on the other. In order to avoid this basic question, all sorts of *ad hoc* arrangements have been made to satisfy the intuition that something is wrong there, and yet preserve the vestiges of the market. We have gone through guidelines, arm twisting, invitations to the White House for dinner (with the IRS on one side and the Justice Department on the other) and then the wage and price control Phases 1, 2, 3, 4,—maybe we'll get 5, 10. What you

do through this is to condition a society which had been relying on the price system to believe that every deviation from normal development requires government intervention.

Then you have the same thing with the energy crisis. Rationing, to be sure, is an exception to the rule, but necessitated by some considerations for equity or justice or what have you. Export controls are an exception to our free trade policy. Import controls are an exception to our free trade policy. Pretty soon, you don't have much left but exceptions and you have changed your economic system.

What is the solution? If you read the list of changes in management practices, one of them was longer range forecasting of social, political, and economic developments. When I raised the suggestion that we should have in this country as institutions, crisis anticipation centers, people scoffed. Well, I wonder what people did when the first guy said, you know, you ought to have laboratories in your universities. I am sure that the practical man of that age reared back and said, "What do you mean? You mean you want to let people play around with studying the bird's wings, and pay them real money for such foolishness?"

You know, think about an industrial laboratory. It's just a bunch of guys in there fooling around and getting paid for it. Look at the Smithsonian. Oh boy! Wouldn't you like to live in the Smithsonian and study bird wings or tadpole tails all your life at a nice fat government salary?

Would your grandfather have called that work? It's no more ridiculous from the point of view of a man from Mars to have a crisis anticipation center than it is to have an industrial laboratory. My problem with communicating with people is that they cannot envisage, they simply cannot imagine, it seems to me, the idea that one would apply the spirit and method of science to social affairs. To them it means I'm going to go out and get a government contract for a dinky little study and I'm going to study 42 people and generalize for 208 million on the basis of it, and make a reputation and get a promotion and get tenure. It means something scroungy and sloppy, you see, because we are a scroungy and sloppy civilization with respect to the application of science to social affairs.

The only scientific reporting that we have in the United States, in my opinion —and I'm not being more than ¾ facetious—is weather reporting. Everything else is organized along medieval lines. Adversary, stone man approach—somebody hits somebody over the head. Is it news any longer that somebody hits somebody over the head? I don't think so. I think that what would be interesting would be to know what proportion of the population hit somebody over the head today. Where were they located? What was their income level? What were their job characteristics? Now that's what they do with the weather. They don't tell you that some personification of the north wind is going to blow into Washington. They've gotten ahead of that. It's not a mythology of that type any more. It's these great masses of air that move around the world. And you are a world citizen when? Only when you listen to the weather report.

Is there any scientific way to study the question of allocating, on behalf of public television, programs that are originated and produced centrally as against locally?

Dr. Madden: I think that the answer would have to be that the fundamental decision would not be based on scientific criteria, but rather on values as to the importance of a plurality of sources of

talent and a plurality of viewpoints. I think that there is, in the tradition of science, a very strong argument. I don't want to strain my own argument here, and I grant you that there are certainly questions of political philosophy as well as questions of science involved in decisionmaking. I wouldn't dispute that for a moment. But, on the other hand, I hear in my ear echoes of John Stuart Mill, whose *Essay on Liberty* advanced the argument for liberty, that since no one has a monopoly on the truth, it improves the—I think he used the old-fashioned word that amounts to psychology—it improves the attitude of people and their respect for the society if there are contending opinions that are available. Certainly that approach to the question of freedom of thought is embedded in the scientific tradition, as well as in our own political tradition. So I think in this instance that both scientific arguments aimed at the philosophy of science and political arguments would suggest that public TV programming should not be any more centralized than is needed, in some minimal sense.

Suppose there is economic justification for centralized programing that overweighs any other justifications for decentralized programing?

Dr. Madden: That brings me to a point that I offer you with the greatest deference but with all sincerity. What do you do with analysts, hypothetical analysts of cost-benefit relationships, who have no imagination as to what benefits may be derived from an activity?

An example. I was at a weird conference with a former OMB analyst now in the Air Force, talking about space flights. He said to me, "Why go to the moon?" And I said, "Well, I don't really want to bore you with all the reasons for going to the moon. Are you serious?" He said, "Yes, I used to be an OMB cost benefit analyst, and I wouldn't appropriate any money to go to the moon!"

Now I'm going to make a male chauvinist analogy. I told him that he reminded me of the story told about the middle-aged lady, the Helen Hokinson type (if you remember that lady who drew in the *New Yorker,*) who was sitting next to Albert Einstein at a dinner. She turned to him and said, with her sweetest smile, "Dr. Einstein, what is the value of $E=mc^2$?" He looked at her a moment and he said, "Madam, what is the value of a baby?"

You know, where do you get your estimate of benefits? Do you get them from the clods in the society? Well then, most things are not worth it, you know? Let's forget it and go home and tend the garden.

There is some sense therefore in which the whole notion of cost-benefit analysis for me is a very dubious procedure unless the benefits are in some way certified or legitimized by the wisest human beings in a given area. I mean that with the utmost sincerity. Suppose the Catholics had done a cost benefit analysis of Galileo's telescope? We'd be in a helluva lot of trouble around here, wouldn't we?

So I say this with deference because I know that many conscientious people work very hard on this question. But I say it, nevertheless, because there is at some point an assertion for that portion of reality which has not yet been measured. That's why I like the girl, even though she may have been a disturbing feature of life, who stood up at the Berkeley riots with the IBM card and said, "Do not bend, fold, or mutilate—I am a human being." There is a certain sense in which reality somehow escapes the rubric of cost-benefit analysis. I wish we understood this as well as the Founding Fathers understood it. Then we would have many local TV programs.

GAO's Competence

. . . if we look at what GAO is and what it is designed to do and what it is capable of doing, I think we would inevitably come to the conclusion that, first, they are certainly capable. If we look at the whole spectrum that they have in fact audited in the past, whether it is a C5–A airplane, the F–111, or whether it is an intricate weapons system that comes out of the Department of Defense, whether it is OEO, or various programs under HEW, there is hardly any area of any facet of our technological experience that GAO is not capable of auditing and monitoring.

First, they are an arm of the Congress. That is the reason they were created. Second, and I think no less important than the first, there is no agency, in my opinion, that has higher respect and is held in better esteem for objectivity and being fair, as well as being competent, than the General Accounting Office.

Congressman William L. Dickinson
Congressional Record
October 17, 1973

Lester R. Brown
Senior Fellow
Overseas Development
Council

Lester R. Brown was formerly Administrator of the International Agricultural Development Service, the technical assistance arm of the U.S. Department of Agriculture. In this position from 1966 to 1969, he coordinated the Department of Agriculture's program to increase food production in some 40 developing countries.

He holds degrees in agriculture (Rutgers, 1955), economics (Maryland, 1959) and public administration (Harvard, 1962). He joined the Department of Agriculture in 1959 and served as an international agricultural economist with the Economic Research Service until moving to the Secretary's staff in 1964 as advisor on foreign agricultural policy.

Recognized as a leading authority on the world food problem while still in his twenties, he was the recipient in 1965 of the Arthur S. Fleming Award as one of the ten outstanding young men in the Federal Government. In 1966 he was selected by the U.S. Jaycees as one of the ten outstanding young men of America.

He is the author of Man, Land and Food (*USDA, 1963*); Seeds of Change (*Praeger, 1970*); World Without Borders (*Random House, 1972*); *and* In the Human Interest (*Norton, 1974*), *books published in a dozen languages. Also the author of numerous articles for professional journals and popular magazines, his writing on the world food-population problem has been featured in such publications as* Saturday Review/World, Foreign Affairs, Scientific American, Science, *the* New York Times, *the* Washington Post, Newsweek, *and* Time.

Mr. Brown is a member of the Council on Foreign Relations, the Cosmos Club, the Federation of American Scientists, the World Future Society, the Society for International Development, Zero Population Growth, and the American Economic Association. Mr. Brown also serves on two committees of the National Academy of Sciences: International Nutrition and Technology and the Developing Countries. He has been a Guest Scholar at the Aspen Institute and has served on the faculty of the Salzburg Seminar in American Studies.

Time magazine noted in a special section 2 weeks ago: "Nothing is older to man than his struggle for food." A food conference sponsored by the United Nations ended in Rome last week after delegates from over a hundred nations met to discuss programs to feed starving peoples and increase food production. Against this background of a world food crisis, we welcome you to today's lecture.

Our speaker is a Senior Fellow of the Overseas Development Council and is a leading authority on the world population problem. He is formerly Administrator of the International Agricultural Development Service and Coordinator of the Department of Agriculture's program to increase food production in some 40 developing countries. He holds degrees in agriculture, economics, and public administration, in 1965 received the Arthur S. Fleming award as one of the ten outstanding young men in the Federal Government, and later in the same year was named one of the ten outstanding young men of America by the Junior Chamber of Commerce for his work in anticipating and alleviating the Indian food problem in 1965.

He has written numerous books and articles. He has been a guest scholar at the Aspen Institute and has served on the faculty of the Salzburg Seminar in American Studies.

—*Comptroller General*

The Global Politics of Food Scarcity

Lester R. Brown

Much of the content of my remarks will be drawn from a book which was published just a couple of weeks ago as a background document for the food conference. It has the irreligious title of *By Bread Alone.* Those of you who have written books know that good titles are sometimes the most difficult part of doing a book. When I was doing *By Bread Alone,* I shared a flight with Liz Carpenter, who also has written from time to time, and was raising this problem with her. She said, "Well, I had the same problem. When my book, *Ruffles and Flourishes,* was in production at Doubleday, the editor and I were wrestling with this and finally we decided to offer a 12-year-old bottle of Scotch to anyone in the publishing house who could come up with a title. Someone did indeed come up with *Ruffles and Flourishes* and claimed the bottle of Scotch."

While I have the Liz Carpenter file out, I might relate one other incident concerning books. Liz, after her book came out describing her years in the White House as Mrs. Johnson's personal secretary, was on a promotional tour and she was in Atlanta, Georgia, and she chanced to meet in a hotel lobby there Arthur Schlesinger, who had also been on the White House staff at the same time. Arthur said, "Gee, Liz, I really enjoyed that book of yours. Who wrote it for you?" And she said, "Well, I'm glad you enjoyed it, Arthur. Who read it to you?"

Complexity of the Problem

One of the things that has impressed me in trying to analyze the food problem is the complexity of the problem. In order to even begin to understand the world food situation today, one must be at once an economist, ecologist, agronomist, meteorologist, and political scientist—at the minimum. I think there is now enough evidence to suggest that we ought to begin asking ourselves the question: Does the complexity of the problem exceed our present analytical capability?

That is a fairly sobering question, but as we look at the analytical record of the early seventies we can see that it is unimpressive. Indeed, a case can be made that we have missed all the important changes in trend. To cite just a few important examples of this: The world fish catch, which had been increasing very rapidly and impressively from 1950 to 1970, going to a new record each year, tripled during this period from about 21 million tons; then it suddenly turned down in 1971, went down again in 1972, and down still further in 1973. This was not projected or anticipated. The projection had been for the catch to continue increasing until the end of the century and beyond. That downturn

was an important factor in converting the world protein market from a buyer's market to a seller's market, which raised the price of soybeans from an average of $2.46 a bushel during the sixties to more than $9.00 at present.

Another front where we badly missed the mark was in anticipating Soviet grain requirements. We knew that, in response to changes in the political climate in the Soviet Union, the leadership there was becoming more responsive to consumer demand. But having recognized that, we did not extend the analysis to the situation which might result from a poor crop, which the Soviets have every 4 or 5 years on the average. We did not foresee the possibility that the Soviets would decide to abandon their traditional mode of adjustment through belt-tightening and try to offset shortfalls by importing grain. The year-to-year fluctuations in the Soviet grain crop can equal the normal year-to-year increases in the world grain crop. The Soviet importers, trying to offset crop shortfalls, introduced a major unanticipated source of instability in the world food economy.

As a third example, early in 1973 the agricultural analysts in the Department of Agriculture projected an increase in food prices for 1973 of 3 percent. The price increase was in fact 19 percent, not a marginal error in terms of economic forecasting. Similarly, it is doubtful that 1 in a 100 agricultural analysts in 1970 would have anticipated that by 1974 we would have released our 50 million acres of idle crop lands for production and, having done so, would be still unable to rebuild depleted world food reserves.

We have not been doing a very good job in analyzing and anticipating major shifts and trends. There will be still more changes in the years ahead. We are at the beginning of a period where the complexity of problems may exceed our analytical capability, perhaps by an increasing margin.

Growth in Food Demand

As we look at the changing world food situation, we see a number of interesting things. In addition to substantial increases in demand for food generated by population growth, rising affluence is emerging as a major additional claimant on world food resources and has loomed large in the late sixties and early seventies. There are fairly simple ways of visualizing the income elasticity of demand for food—the relationship between income level and claims on food resources. One is to simply look at per capita grain use at various income levels.

At low income levels, the average person consumes about 400 pounds of grain per year, as in India, Nigeria or Colombia—about a pound a day. When you have only that much grain available, almost all must be consumed directly to meet the body's minimum calorie needs. It is only above that level that one can afford to convert grain into animal protein. In a more affluent country, such as the United States the average American uses nearly 1 ton of grain per year, of which only 150 pounds or so is consumed directly, in the form of bread, pastries, and breakfast cereals. The great bulk of that ton is consumed indirectly in meat, milk, and eggs. Thirty-six pounds of it is used in the form of domestically manufactured beer and bourbon. Adults who drink each probably account for close to 100 pounds of grain per year in the form of alcoholic beverages.

As we look at the increase in the demand for food, we see that the annual increment is getting larger and larger, while the resource base, in terms of land and water and so forth, is remaining

essentially the same. In 1900, the annual growth in the annual world demand for grain was approximately 4 million tons a year. By 1950, the annual growth was an estimated 12 million tons a year. In the early seventies, it is about 30 million tons per year. Thirty million tons is roughly the equivalent of the Canadian, Australian, and Argentine wheat crops combined. So each year the growth in the demand for food grows, and grows by a larger quantity, assuming that economic activity continues to expand. This puts a great deal of stress on the world's food-producing resources.

Food Producing Resources

Of the major resources—land, water, energy, fertilizer—none can be described as abundant today. Most of the good cropland in the world is already under the plow. Most of the easy irrigation projects have already been undertaken. Future projects will be more difficult and more complex. During the final quarter of this century, the lack of water, rather than land, may be the principal constraint on efforts to expand the world's food supply. It is the lack of water that is now the principal constraint on the spread of the high-yielding wheats used in the green revolution countries, ranging from Mexico to Afghanistan. It is lack of water that seriously constrains Soviet efforts to expand agricultural and, particularly, livestock production rapidly enough to keep up with growth in consumer demand.

We have reached a point where countries are considering rather novel techniques for increasing the amount of fresh water available for food production. The Soviets, for example, are planning to divert water from four rivers that flow northward into the Arctic Ocean and to use the water for irrigation in the southern part of the country. Altering the flow of warm water to the North may affect the climate in the Arctic and this in turn may have an impact on the entire global climatic system. The problem is, no one quite knows what the impact will be. Our models are not sophisticated enough to tell us. And the Soviets are so concerned with the need for more water that they are not paying very much attention.

We also note that countries are beginning seriously to engage in rainmaking as a means of increasing the amount of fresh water available. Rhodesia announced late last year that it was going to cloud-seed systematically this year, with the objective of increasing average rainfall in Rhodesia by 10 percent. Whether or not Rhodesia will be successful in that particular endeavor we do not know. We do know that rainfall can now be produced in some situations where otherwise it would not occur. If Rhodesia is successful, it may be, at least in part, at the expense of neighboring countries in east Africa. And with the Rhodesian initiative, the stage is set for other countries to hire rainmaking firms and for meteorological warfare to move from the pages of science fiction into the daily newspaper headlines, much as we read today of countries competing for available fish supplies in many oceanic fisheries.

Energy? We do not yet know what the impact of quadrupling of the world's energy price will be on future food production prospects. We do know that it will not be positive. We also know that the existing technologies for expanding food production are energy-intensive, not only in the form of mechanical power, but in terms of fertilizer irrigation as well. Fertilizer, especially nitrogen fertilizer, is one of the things expected to increase food production in the future, and it is a very energy-intensive commodity.

Lester R. Brown, Senior Fellow, Overseas Development Council, GAO lecturer on November 19, 1974 (second from left); on left Monte Canfield, Jr., Director, Office of Special Projects; on right, Elmer B. Staats, Comptroller General and Phillip S. Hughes, Assistant Comptroller General.

From the Ecologist's Viewpoint

Another way of looking at the world food problem is not to look at it in terms of resources, but to look at it from the point of view of an ecologist. It is very difficult for ecologists and economists to communicate. Economists think linearly and exponentially, and think specialization is a virtue. Ecologists, on the other hand, think in terms of closed systems, cycles and equilibria, and think specialization is a risk while diversity is a virtue. It is very difficult to achieve meaningful communication when the premises from which the two disciplines operate are so different. Economists think ecology is a sub-discipline of economics; ecologists think economics is a sub-discipline of ecology. The ecologists are probably closer to being right.

I recall being at a conference a couple of years ago at Williams College where a small group of the leading economists and ecologists from around the country were brought together to discuss problems of economic development in the developing countries. I was addressing the conference on the morning of the second day. I noted that economists and ecologists are very much like oil and water: if you put them together and stir them vigorously, they will stay mixed. Once you stop stirring, they separate. They are essentially immiscible. Barry Commoner was sitting on the front row, and said that if you put oil and water under pressure, they'll stay together. And I said, "What do you get?" He said, "Mayonnaise."

What we are beginning to see in the world today are situations in which the pressure of growing demand for food is beginning to undermine the ecology of

some of the world's major food-producing systems. The decline in the world's fish catch over the last 3 years was mentioned above. The principal factor contributing to that is over-fishing. Today, an additional $1 million invested in fishing capacity, fishing fleets, and so forth does not necessarily bring a positive increase in the catch. This is not merely a matter of diminishing returns; in many of the world's major fisheries such an investment would bring about an absolute decline in the catch over a fairly short period of time. The syndrome of over-fishing, depleted stocks, and declining catch is common to a number of oceanic fisheries as disparate as the cod or haddock fisheries in the North Atlantic and the anchovy fishery off the western coast of Latin America.

Another example of the pressure of growing demand for food beginning to undermine the ecology of a food system can be observed in the African Sahel. A doubling of human and livestock populations in those countries along the southern border of the Sahara over the past 35 years has put more pressure on that ecosystem than it can withstand. In the news, the problem in the Sahel is reported as a product of several years of drought. It can be argued, however, that the drought was a trigger event that brought the adverse, deteriorating, longer-term trends into focus; that the basic problem is over-grazing and deforestation leading to the southward extension of the desert at a rate of 30 miles per year in some places, according to an aid report. As the desert moves southward, and human and livestock populations retreat before it, the pressure on the fringe area becomes ever more intense as the effect of the shift reinforces its cause. The real challenge to the international community is to break that cycle, and that will not be easy. As yet, the international community has not begun to respond in a meaningful way.

A third example from the broad spectrum of ecological over-stress is the consequence of accelerating deforestation of the Indian subcontinent. As deforestation progresses, the incidence, frequency and severity of flooding increases. We read, in August 1973, of the worst flood in Pakistan's history. In 1974, in late August and early September, we learned that Bangladesh was one-half covered with water, a serious flood that damaged or destroyed much of the standing crop. It is easy to predict with some confidence that there will be even worse floods in the sub-continent in the future. Exactly when they will come and whether in a given year they will be in India or Pakistan or Bangladesh, we do not know. But these floods will become increasingly severe, and they will affect the food-producing system of the sub-continent, which is now supporting, after a fashion, 750 million people.

The three examples above are part of an extensive list. Oceanic fisheries and the food-producing systems in sub-Sahara Africa and the Indian sub-continent all are important; all are deteriorating, and in no case has action been set in motion to reverse the dangerous trends.

From the Economist's Viewpoint

Another way of looking at the food problem, other than the ecological view, is to look at it through a purely economic lens. What we find is that we have often been asking the wrong question. We have been asking ourselves, "What is the potential for expanding world food output?" If we put the question in those terms, one can say that we can double world food output or triple world food output or even more.

But that is not the most useful ques-

tion. The important question is: "At what cost can we get a given increase in output?" And when we ask that question, we see that in order to bring additional and, for the most part, marginal resources of land and water into production throughout the world, the world price of food must rise. What we are now beginning to see is the price of food rising beyond the reach of millions of people in the world. And as the result, as of 1974, death rates, which have been declining for some 20 years in almost all the developing countries, have begun to turn upward now in at least a dozen, perhaps as many as 20, developing countries. The U.N. Population Conference at Bucharest called for a reduction in world population growth to 1.7 percent by 1985, over a decade hence. But in 1974, world population growth will probably already be down to 1.7 percent. It is declining for two reasons. In one group of countries, birth rates are coming down rapidly—the United States, the United Kingdom, the two Germanies, China. And in another group of countries, death rates are rising—Bangladesh, India, Ethiopia, all the Sahalian zone countries, and a scattering of other low-income countries in Latin America, Africa and Asia. The question is no longer whether or not population growth will slow, but whether it will slow because birth rates come down or because death rates go up.

We must begin to redefine famine, moving away from the traditional, geographically focused concept of famine (Ireland in 1847, West Bengal in 1943) toward the recognition that famine is concentrated in low-income groups, particularly in the low-income countries. It's much less visible but no less real, and it seems quite likely that unless we can begin expanding the availability of food through food assistance, we're going to see famine in a number of low-income countries.

Food security has now deteriorated to the lowest level since the months immediately following World War II. World food reserves are very low, almost nonexistent. Historically, or throughout most of the post-war period, the world has had two major reserves. One has been the approximately 50 million acres of vital cropland in the United States; the second being the stocks of surplus grain carried by the principal exporting countries. Together, as recently as 1972, they represented 66 days of world grain consumption. As of 1974, they are down to 26 days, not much more than pipeline supplies.

As food has become scarce, we have seen the emergence of what might be described as a global politics of food scarcity. This is evident in many ways. We saw it in the use of secrecy by the Soviet Union to corner the world wheat market before anyone knew what had happened. We have seen it in principal exporting countries restricting the export of basic food stuffs for domestic price reasons: Thailand with rice, Brazil with beef and soybeans, the United States with soybeans. The question of how scarce food resources are shared among countries is beginning to loom large in international political relationships. Both the short-run and the long-term situations present difficult problems.

The Short-Run Need

The short-run question is a basic one: How can we keep the world reasonably intact until the next harvest? In 1974, the world harvest was down sharply from 1973, only the second time in the previous dozen years that the crop had declined significantly from the preceding year. It was down nearly 3 percent from 1973, during which year 70 million people were added to the world's popula-

tion. The crop down-turn was concentrated in two regions: Asia and North America, regions which happen to be the world's two major food-producing regions. In Asia, the crop declined because of shortages of fertilizer and fuel, and, to some degree, poor weather. In North America, the crop declined because of poor weather alone.

In 1972, the crop harvested was also less than that of the previous year, largely, but not entirely, because of a poor Soviet harvest. The difference between 1974 and 1972 is that in 1972 there were still very substantial reserves of grain to draw upon. In 1974, there were not. This placed the burden of meeting shortfalls in the low-income countries on redistribution of limited supplies from the affluent to the poor nations, a solution fraught with economic and political perils, even though modest reductions in consumption of food, especially of grain-intensive livestock products, in the rich countries would free up several million more tons of grain for food-aid purposes.

The Long-Run Response

Over the longer term, a response must be evolved which involves both slowing the growth of world demand for food and putting the brakes on population growth. It seems unrealistic to think of world population doubling over the next generation or so, or of world population eventually rising to between 10 and 16 billion, as is currently projected by the United Nations. Analysts have not done a good job with the question of population. Note, for example, that the most widely-cited demographer in the world today still is Malthus, who wrote nearly two centuries ago. We have not moved far enough beyond Malthus, in analytical terms, to be able to displace him as the principal authority. That is a sad commentary on the discipline of demography. The demographers making the projections that we are now using, the UN demographers in particular, make those projections in a vacuum; that is, they consider only demographic factors narrowly defined. They depend on certain assumptions about desired family size, fertility levels, and so forth. They do not take into account inputs from ecologists, human toxicologists, meteorologists, resource specialists and so forth. In the absence of such inputs, their projections may be neither very useful nor very realistic.

We ought to try to slow and stabilize population growth long before we get to 10 or 16 billion; a stable level of 6 billion or so would be so much easier to live with that it is worth a strenuous effort.

A major effort to expand food production is also required. Most of the unrealized agronomic potential is now in the developing countries. Bangladesh, for example, has fertile alluvial soils, far more fertile than those of Japan, yet its rice yields are still only a quarter of those of Japan. India has 350 million acres of croplands, almost exactly the same as the United States, yet India harvests 100 million tons of grain per year compared to the United States' 250 million tons. In the United States today, an additional ton of fertilizer will yield perhaps 5 additional tons of grain. In India an additional ton of fertilizer will produce at least 10 additional tons of grain, perhaps even 12 or 15, the difference being that the United States is on the declining part of the fertilizer response curve, whereas India is on the steeply upward-sloping part.

Deepening Interdependence Among Countries

We face a moral and political dilemma in the world today, in a world which is

becoming increasingly interdependent. There is a tendency for national governments to formulate food policy or population policy or consumption policy in national terms. This is to forget that inter-dependence among countries is deepening along economic, ecological, meteorological, technological and social, not to mention political, vectors, and that national solutions are probably no longer viable in many policy areas, including food. For example, all countries depend on phosphate exports from two countries, Morocco and the United States; much of the world is dependent on potash from one country, Canada; efforts to expand food production throughout much of the world depend on energy exports from a handful of countries, largely concentrated in the Middle East. One region, North America, controls the lion's share of food available for export. Indeed, North America today controls a share of the world's exportable grain supplies larger than the Middle East's share of oil.

Rome Food Conference

A few comments on the Rome food conference might serve as a summary. As most people look at the food conference, it is useful to divide it between the long-term and the short-term actions taken. Most people would consider the actions dealing with the long term rather encouraging, at least in terms of their potential, though it will be years before we know whether some of the proposed new institutions materialize and are able to perform the roles which their initiators hoped for. But for the time being, we have to recognize that the potential for doing some important long-term things now has an international framework, capable of mobilizing capital, particularly from the newly-affluent countries, the oil exporters, capable of making available more technical assistance, more inputs such as fertilizer, and so forth.

The difficulty is in the short term, and the question that hung over the conference at Rome was the very immediate and pressing one: How can we make it to the 1975 harvest? The Bangladesh delegation literally pleaded with the congress, saying, "We need help and we need it quickly." And the conference was not very responsive. The U.S. delegation, unable to come to grips with the problem, was split between Agriculture and State right up until the day the conference was convened. During the conference, a very clear cleavage developed within the U.S. delegation, between the congressional and the administration components, with the congressional delegates feeling that they had been left out in the consultations and that their thinking had not really been incorporated into the U.S. position. The congressional component of that delegation was probably much closer to grass-roots feeling in the United States than was the administration in Washington, preoccupied as it was with inflation and balancing the budget or at least trying to reduce the size of the budget deficit. Though Secretary of Agriculture Butz tried to portray the congressional initiative as a partisan effort, a great number of senators and congressmen from both parties fully supported the congressional delegates' position, which was to put pressure on the administration to commit the United States to more food aid in the short run.

Need For Action

Failure to respond to the short-term problems raises the very real possibility that the credibility of longer-term proposals will not be maintained. We are in a period when people in the world appear to be losing confidence in humankind's ability to cope with some of the important problems it faces—resource scarcity, energy, inflation and international monetary instability, to name a

few. If, in these circumstances, we sit by and watch a major human catastrophe unfold in the Indian sub-continent, it is bound to have an adverse and perhaps even dangerous psychological effect on people, because it would signal to people that the world's problems have indeed become unmanageable, that we are no longer able to respond, that an administration concerned with inflation and budget-balancing and a poor crop year is unable to act.

It seems very likely that the people in this country, despite the problems they face in the short run, would welcome an opportunity to demonstrate their concern, responding generously to a request to belt-tighten a bit, have one meatless day a week, skip one meal a week, or in some other way cut back on consumption and waste. After many years of Vietnam and of Watergate, an initiative of this sort could actually be converted into a political plus, if our leadership had the imagination to do so. If we do not begin to move quickly in making additional food available for the countries that are hardest-hit, we are going to see a very significant rise in death-rates. That could easily amount to millions of deaths, making the loss of life associated with Vietnam, for example, seem small by comparison. But the difficulty is in perceiving the problem and providing the leadership that will be required to mobilize public opinion and resources.

DISCUSSION

Would you comment on how China seems to have overcome the enormously serious food shortage that has existed there throughout much of its history, especially since it seems to have been done by internal means?

Mr. Brown: It might be useful to look at the Chinese experience and achievement from two or three different vantage points. It seems to me that the remarkable achievement in China is essentially eliminating the obvious clinical signs of malnutrition. Whether one talks to journalists or doctors or scientists or economists or what-have-you, you can't find anyone who, at least in the areas of China in which they've traveled, has been able to see the sorts of malnutrition that exist in most developing countries.

It seems to me that the achievement has been mostly on the distribution side. There don't seem to be any wealthy Chinese in China today. The progress on the production side has been good but not dramatic. The rate of increase in food production in China in the past 15 years has been actually much less than that in a number of other developing countries. But they have managed to distribute what they have very well. They have concentrated on forms of protein that are sort of low on the biological chain, if you will, relying heavily on soybeans, and relying on poultry and pork much more than beef.

They have also, in recent years, launched what I think must be considered the most aggressive family-planning program of any country in the world. This involves a wide range of reshaping of economic and social policies, including a minimum legal age of marriage, and a still higher recommended age of 27 for men and 25 for women; social security being provided by the production team of the commune rather than depending entirely on children, breaking that historical dependence on large numbers of children; making available contraceptive services backed up by abortion that is not only readily available but free; limiting the number of children for which ration cards are available, I am told, to three or even in some cases, in some parts of China, to two; but using a whole range of economic and social policies to really put the brakes on population.

Now there are a number of things that indicate to me that the Chinese view the food problem very seriously. One is what they've done on population. Another is that though China has done a great deal internally, for several years China has been importing very sizable amounts of grain. It was 4 to 6 million tons throughout the sixties, and that has now moved up to as much as 9 million tons in fiscal year 1974. And probably one of the most revealing sort of indications that they are deeply concerned about the food problem is that they have contracted with a western multinational corporation, namely Kellogg Engineering, to build eight massive new nitrogen fertilizer plants in China.

Their willingness to turn to western firms for technology and for actual construction of plants suggests that they do regard the food problem quite seriously. Based on what we've seen in recent years, I think the chances are pretty good the Chinese will be able to stabilize population at a level with an acceptable standard of living. I think there's a lot in the Chinese experience that other countries ought to look at, not that the whole thing should be transplanted. But I think it deserves careful examination.

Is it possible for the United States to develop food policies to meet domestic and international needs without moving toward some sort of political controls?

Mr. Brown: Let me suggest that, in the short run, the most immediate problem is how to get the world to the next harvest; I think we can make it without controls. There is some historical experience here, most recently with the energy situation. We got voluntary reductions to some degree this past year, particularly in the use of heating oil. When President Nixon asked us early this year to turn down thermostats 6 degrees in homes and offices, I think the degree of compliance was fairly widespread. I think it made a difference in energy consumption. And it's really sort of the equivalent of turning thermostats down 6 degrees that we're talking about. We're talking about a reduction in consumption of maybe 2 percent or 3 percent, to free up additional food for export, and if that is voluntary it will not have an inflationary impact. That is, if we can reduce consumption through voluntary means, by 4 million tons, then we can ship abroad 4 million tons without having any increase in food prices.

On the longer term question of whether we need some sort of controls or not, I guess we have to say that in recent years we have instituted controls of sorts. We're not permitting the Soviets to have free access to our available grain supplies. We're regulating that access. If we can't rebuild world grain reserves, if we can't begin to put the brakes on population growth very soon, and if we're continually faced with a situation of chronic scarcity and never quite enough to go around, then it seems to me that the United States as *the* principal supplier of food to the rest of the world will almost certainly be forced into adopting some sort of a export control situation, like the Canadian marketing board for wheat, which allocates the exportable supplies by country. If we don't do that, then those who have the money will soak them up first and the poorest countries may be squeezed out almost entirely.

If the United States and other affluent countries tighten their belts, do you think that an international mechanism exists to get the food where it is supposed to go?

Mr. Brown: I don't think there's much question as to whether or not the mechanism exists. For one thing, to put it in perspective, I would point out that we're not talking about enormous quantities

of food. U.S. food assistance during the late sixties was running between 10 and 15 million tons of grain per year. As recently as '72, I think it was something like 9½ million tons and in '73 maybe dropped down to 7 million tons. We're now down to about 4 million tons. What I think is needed from the United States is perhaps an additional 4 million tons for the current year, which means 8 million tons—still far below the 10 to 15 million tons that we were moving. So we're not talking about anything dramatic in terms of scale; much less than we've done in the past.

Then there is the question of how many countries have the capacity to distribute internally. And here, clearly, some countries are much better than others. India is much better than Bangladesh. India has had a lot of experience and has gotten pretty good at distributing limited food supplies fairly evenly throughout the country. Bangladesh doesn't even have its transportation system functioning yet, quite apart from its lack of administrative experience. So I think the success at the recipient-country level would probably be fairly uneven. And there is of course always the problem of corruption when there's scarcity and prices are high and this sort of thing, and we do need to concern ourselves about that.

You mentioned that our analytical capacity is limited. If the complexity of the problem exceeds our analytical capability, what can we do and what is taking place in terms of building the needed information systems and forecasting abilities?

Mr. Brown: It seems to me the problem divides into two parts, the information question—getting the necessary information and data—and the analytical capability to use data and to understand from it what is happening. We need better data than we now have. For example, I would argue that, in monitoring, economic data are not adequate to monitor carefully and closely nutritional stress. That is to say, I think the Department of Agriculture should be concerned not only with production and availability and prices, but should have much more sensitive indicators, such as infant mortality, for example. We ought to be gathering on a sample basis, almost weekly, data on infant mortality, particularly in the lowest income groups in the low-income countries. This would be far more sensitive than any indicator we now have to the degree of nutritional stress in a society.

Another problem, as I mentioned earlier, is that understanding what's happening in the world food situation today involves several disciplines. What we need are analysts who are capable of synthesizing across disciplinary boundaries. Our system does not produce good synthesizers. We produce specialists by the millions, and they are increasingly specialized, and increasingly out of touch with problems because the specialties have become so narrow that they don't relate to real world problems in a meaningful way. I would argue that a great deal of student frustration in recent years reflects this, even when it is not articulate. It seems to me that we ought to be thinking of a new profession in which an individual is trained in both the natural and the social sciences, attempts to move back and forth across disciplines and has an analytical capability that can be used in a number of subject matter areas. And I think this is feasible. It is not easy; it puts a lot of stress on the individual because the effort required is not insignificant. But it seems to me that to the extent we are going to get on top of some of these problems, it's that sort of thing that is going to be required.

I don't see many universities moving

in this direction, trying to produce people with this capability. I might mention quickly that this has concerned me sufficiently that, as of this week, I'm starting a new organization that will be called Worldwatch Institute, the purpose of which is to try and anticipate problems a bit before they land on the doorstep in the form of morning newspaper headlines. It will not be an organization of futurologists, who'll be predicting everything to the end of the century and beyond, but people who would try to anticipate problems a little before they emerge full-blown. Frankly, one of the difficulties in staffing such an organization is that while you can get good junior people—recent masters' degrees from the Woodrow Wilson School at Princeton, for example—it is very difficult, or at least I'm having great difficulty, in finding senior analysts who have an interdisciplinary capability and can analyze with some competence across disciplines. I must say, if there are many people out there like that, who feel comfortable doing that, I have not been able yet to locate them.

Do you think multinational corporations have grasped the problem of food scarcity and what is their role in international food development?

Mr. Brown: The multinational corporation has become very much the whipping boy internationally, and I think we've tended to forget that much of the know-how, much of the technology—whether it's in building fertilizer plants or processing food—does reside in multinational corporations. There are many weaknesses in multinational corporations. For example, very often, farm equipment manufacturers transfer technologies that are quite well-suited to agriculture in the industrial countries, but not at all suited to the type of farming that exists in developing countries. Very often the technology transferred is not appropriate. But the technology for making fertilizer today is the same everywhere in the world.

I think that we need to recognize some fairly fundamental things. The multinational corporations do exist. The question is not will they exist or won't they exist; they do. And they are probably going to continue to exist for some time in the future. Therefore, the question is how to capitalize on their strengths and minimize their weaknesses. There are relatively few countries who are looking at multinational corporations in those terms. However, I must say that at the food conference there were representatives of a number of multinational corporations and even while some of the delegates from developing countries were making speeches or being very critical they were actually in discussion with some of these firms about possible investments and transfers of technology.

Do you think that increases in food aid should be accompanied by a demand that other countries do something about population control?

Mr. Brown: It seems to me that an increase in food aid, the use of U.S. food in the short run, should be viewed as an effort to create a workable world order, to keep things working. And it seems to me that any country which does not recognize our need to accommodate ourselves to what is after all a finite and not terribly large planet should run the risk of being penalized by the international community in one way or another. It seems to me that it's one thing, for example, for the Brazilian government to say, "We want to double our population." It's quite another thing to recognize that much of that doubling must come with energy imported from the Middle East, with phosphate imported from Morroco, that is, in direct competition with other countries of the world. It seems to me that we have to give

serious thought to both putting the brakes on population growth and, in the more affluent countries—and this is what the official U.S. delegation will never discuss—also beginning to think about how we simplify life-styles and re-examine the relationship between levels of material goods consumption and our level of well-being. So I think my quick answer would be, I think we ought to take population into account in giving food aid, but at the same time, we can't avoid the fact that we can't continue to pursue the superaffluence in our own society indefinitely.

In view of the growing shortage of food supply today in relation to demand and world needs, is any significant progress being made in developing new sources or new types of food?

Mr. Brown: One can think of a fairly longish list of new food possibilities, either that are under consideration or have been considered. It is difficult to think of anything which is going to make a major difference in and of itself. We are still dependent on the process of photosynthesis for the production of food, either directly or indirectly. There's no other way of producing food that comes from oceans or from agriculture or even food produced from petroleum which is dependent on the photosynthesis of eons ago. One can cite many things: the feeding of urea to beef cattle, for example, is gradually increasing in this country and is beginning to catch on elsewhere in the world. We're now feeding cattle close to a million tons of urea per year in the United States. Now, that can increase, but it takes very sophisticated management to use it, because it can be a very damaging thing in health terms. Or we could think about high-protein cereals. We now have isolated genetic material that will greatly improve and increase the quality of protein in corn, of protein in soybeans. But it's taken time to get characteristics bred into high-yielding varieties that are commercially competitive. We're gradually moving toward it. We could talk about fish-farming. Fish-farming is surely going to expand in the future, but I doubt that within this decade it is going to make a massive difference at the global level. It takes a lot of investments as a matter of fact. And I could go on. So I see a lot of things making a little difference. I don't see anything really serving as a panacea in the world food problem.

Would you comment on 3 possibilities for increasing food production: (1) the modification of production patterns by eliminating the use of agricultural lands for the production of tobacco, (2) the conversion of waste materials into fertilizer, and (3) the reduction of use of fertilizer on lawns and other non-agricultural areas? Also, how will the idea of reducing our food consumption affect inflation and unemployment?

Mr. Brown: Let me run through those points in the order in which you raised them. First, as a non-smoker, I'm all for taking land out of tobacco production. Having said that, I should add that if one looks at the non-caloric beverage and tobacco crops, that is, coffee, tea, cocoa, and tobacco, which are all important commercially, these four crops together occupy less than 1 percent of the world's cropland area. So it's not a major source of additional production, even if we should succeed in shifting from these nonfood yielding crops to others.

On the second point, recycling waste, I think the great increase in the cost of energy for fertilizer will probably cause us to do some rethinking, particularly with animal waste in the United States and it may be that the high cost of fertilizer, reflecting the high cost of energy, may shift the economic advantage

away from the large feedlots—that are feeding 10, 50, 100,000 head and where they do not or cannot easily get the waste back on the land—toward the smaller, family farm-type feeding operation, with a couple hundred head, where the waste can be spread on the fields immediately in the vicinity. We may see a shift there; I haven't examined the economics, but I think it's at least a possibility. Related to that is the possibility of using municipal waste to produce algae which can then be used to produce oysters or this sort of thing, and there is research work on this. I expect that over time, this may begin to develop some significance because it helps solve two problems—one is waste disposal and the other is food production —and these organic materials are of value.

The third one is the question of fertilizing lawns. In the short run, the fertilizer problem is not very different from the food problem. For the next couple of years, the world supply of nigrogen fertilizer is going to be very tight and we simply can't get new plants on stream much before 24 months. That means that, if we're going to increase the amount of fertilizer for food production, one of the ways we can do it is to cut back, temporarily at least, on the use of fertilizer for nonagricultural uses, that is, lawns, cemeteries, golf courses, what have you. We're not talking about getting rid of lawns or getting rid of golf courses or what have you, but just letting them be a bit less green for the next year or two than they otherwise would be. Fifteen percent of that fertilizer used is about 3 million tons, and that's almost exactly the amount of fertilizer used by farmers in India. So it's not an insignificant amount. I have no illusion that we could get rid of all of the nonagricultural use, but if we reduced that 15 percent to 10 percent, then that would free up another million tons of fertilizer, which is 10 million tons of grain. So we might need to consider that.

The other question concerns our problems in the short run here with inflation. If we tighten our belts a bit and cut out one meal a week, or have one meatless day a week, or something of that sort, that will cut back on consumption and will free up food for movement abroad without an inflationary impact, if the consumption equals the increased shipments. The unemployment question is a serious one, and I think the thing that we've neglected to look at there is how we distribute a given level of employment in a society. The way we tend to do it, is, when we cut back, we just sort of cut people off at the edge. It seems to me that we perhaps ought to be thinking, you know, as Chrysler is cutting back, that maybe the thing to do is not to cut some plants down entirely, but rather, if they need to cut back, instead of having three 8-hour shifts, maybe have four 6-hour shifts, and that sort of thing, in order to keep everyone employed rather that just cutting off someone and letting him go entirely. I think that in that way we would absorb the impact of unemployment much more equally throughout the society.

Saville R. Davis

Saville R. Davis is a specialist in United States foreign policy who has held the most sought-after assignments in the newspaper profession. During a 40-year career, he was reporter, foreign correspondent, news editor, managing editor, chief editorial writer for The Christian Science Monitor, *and—his final post—chief of its Washington News Bureau, during the Johnson-Nixon presidencies. He retired from the* Monitor *in 1971 and currently is a free-lance journalist and lecturer.*

Mr. Davis was the Monitor's *chief European correspondent immediately after World War II and covered the so-called peace conferences which failed to reach a settlement and laid the groundwork for two decades of cold war. He then followed the cold war news, alternating as reporter in the field and as national news editor and managing editor in the paper's headquarters in Boston. In 1965 Mr. Davis became chief of the* Monitor's *Washington News Bureau.*

He has always traveled extensively and recently returned from a 6-month reporting trip around the world. He has not confined his activities to journalism. He was a member of the coordinating panel of the Rockefeller Reports along with Henry Kissinger, Dean Rusk, and Nelson Rockefeller. He served on the Draper Committee appointed by President Eisenhower to modernize foreign aid, and on the Business Ethics Advisory Committee appointed by President Kennedy.

Mr. Davis is a Phi Beta Kappa graduate of Williams College and has an M.B.A. degree from the Harvard Business School. He considers first-hand analytical coverage of the news to be the most severe discipline and the most exhilarating pleasure in the news business. Like most newspaper professionals he prefers to be known as a reporter.

Our speaker for today, like most serious-minded reporters, prefers understatement about his own career and qualifications. If he is as dull about his topic as he is when talking about himself, we are in for a bad afternoon. All we could get out of him by way of personal information, to add to the who's who kind of material in the advance notice of this lecture, was an anecdote.

A few days after he joined the staff of *The Christian Science Monitor* as a cub reporter, he literally collided with the editor-in-chief in a corridor. The editor was obviously off in a cloud of thought somewhere. The jolt brought him down to earth, he saw a new face, and thought he ought to say something. "Young man," he said, "don't ever let anyone fool you. There is only one title that any man worth his salt would want to have on a newspaper, and that's reporter." With that, he hurried off down the corridor, leaving Mr. Davis with the notion that being editor was not all it was cracked up to be—a fact about bureaucracy that he confirmed many years later. But, the editor also left Mr. Davis with the title which, after 40 years in the news business, he still prefers to be known by. I am happy, therefore, to introduce an outstanding reporter of our time. We'll let Mr. Davis go on from there and judge him, as he wishes, not by his biography but by what he says.

Lest Mr. Davis thinks that I am putting him on the spot, I hasten to add that the same test applies to GAO. It is not our statutory charter which is the important thing; it is not the size of our budget, our long history, or where we fit into the governmental structure that really is important in the final analysis. What is important is the substance of what we say, how objectively we say it, how clearly and simply our reports are written, how ably we document our conclusions, and the constructiveness of our recommendations.

—*Comptroller General*

The Outlook for Detente

Saville R. Davis

Before I plunge in, what about this word "detente"? It has become a code word, the quick term for easing relations with Moscow and Peking. But what does it actually mean? Interestingly enough, the Oxford Dictionary shows that the word couldn't be more appropriate. In olden times it referred to the moment when an arrow was shot from a medieval crossbow—the moment when the bowstring suddenly goes slack. Therefore, in French diplomatic usage, the word came to be used for the relaxation of international tension. There couldn't be a more appropriate word for the new foreign policy of the United States which is struggling, against heavy odds, to be born.

What follows is one reporter's view of the American future. I won't pull any punches. I will have to talk in obvious oversimplifications to make my points clear. So please hold your hats, and I will quickly list the *changes* that I see ahead, and then move on to the *challenges,* which are the real meat of the situation.

Change #1

From cold war to detente. We shouldn't fool ourselves that the cold war is over, but it presently is in decline. Detente is still out ahead in the fog, a dream and a plan. It is only beginning to take dim shape in the first stage of the Mideast settlement, and in the SALT talks on nuclear arms control. Granting these great uncertainties, it is the change of direction that counts. It is drastic and perhaps revolutionary. The known world of the cold war, with its familiar ground rules and confrontations and its rigid dogmas, is, for the moment at least, receding into the past. We are groping our way into a different world, into an unknown where there are no ground rules or precedents. This could be a great historic turning point. It may succeed or may collapse into failure. We don't know which. But during the attempt, the new dispensation will require great wrenching changes in our policies, our grand strategy, and especially our national psychological attitudes which have hardened into cold war patterns, and which are likely to receive many jolts.

Change #2

A fundamental change in the nature of power in today's world. This, I believe, was the basic reason for the collapse of the cold war in Vietnam. Until then, power had been predominantly military—applied in periodic wars, and applied in between wars by brandishing the *threat* of war, which is the peacetime use of military power. But in Vietnam, we suddenly discovered a new version of the new-old principle: that in a local war the great powers can take opposite sides and pour in armament to both sides, to the point where neither

side can win. The result is stalemate and frustration for everyone.

The reason for this new version of the ancient balance of power idea is, of course, the coming of nuclear weapons. Now, both parties in the great power balance have overkill. So—and here is my central point—because of the nightmarish danger that conventional war will escalate into the nuclear holocaust, the normal types of military power are declining in usefulness for the big powers. We are reduced to the frustrations of limited war, as in Vietnam, and limited war isn't enough. So, for the big countries, military power is losing the ability to accomplish what it is sent to do. Meanwhile, nonmilitary types of power —chiefly political and economic forms of power—increasingly can accomplish the same purpose better than armies.

Quite simply, because of the presence of nuclear weapons, the old war system is too dangerous now. It follows that, because of its declining usefulness, nonmilitary types of power are taking its place. I don't need to say, to this audience, that power dominates all else in the international world. Any deep-lying change in the nature of power changes everything else. So it was this unperceived change, way down under the surface of events, caused by the oncoming of the nuclear era, that largely explains the frustration of the Vietnam war. We greatly overestimated what military power could do under the new and changed conditions. So we also underestimated the new importance of the nonmilitary or political component of power, as I will explain later, and the cold war foundered in the villages and cities of Vietnam.

The great revolutionary changes of history come that way, silently and unobserved. As a result of new forces in society, the center of gravity of power gradually shifts. Then comes some dramatic and puzzling event like the Vietnam war. When we try to discover what went wrong, we find that a realignment of fundamental forces, like the one I have described, had already occurred, and we are acting on assumptions that had already become obsolete.

Change #3

The sudden shift of a large number of disillusioned Americans away from the Vietnam war. I won't elaborate because we all understand this, and I have only to list it. Rightly or wrongly, large numbers of Americans came to reject, passionately, the abuses that had multiplied in the last desperate stages of the Vietnam war—killing with mechanized brutality, and corruption, both political and economic. While Hanoi's people believed their cause was right, an extremely articulate minority of Americans turned away from these brutalities which the majority had felt were necessary under the circumstances—turned away with intense emotional revulsion. And, as a whole people, we groped for something different. But we didn't think it through. We didn't really know what we wanted to put in the place of the familiar cold war rules, except for a nebulous concept of peace which we didn't know how to organize or manage. That is the central thesis of this talk.

Change #4

Enter Kissinger on the scene, with a new conceptual and strategic analysis of the situation. You know what happened. At Guam a new set of guidelines for the future was announced: the so-called Nixon doctrine. The United States was to withdraw its ground forces from the mainland of Asia, and assist third countries henceforth by any means *except* sending armies to fight for them. The new set of ideas was defined and amplified in the admirably candid annual

reports of the President on foreign policy, largely Kissinger's work. Then came the startling Kissinger-Nixon trips to Peking and Moscow, and the new philosophy was no longer a unilateral American concept: it was explicitly endorsed by the Chinese and Soviet communist leaders.

So much for the changes, to set the stage. There were others but these were fundamental. Now for the challenges.

Challenge #1

To define clearly what the plan for detente is—and especially what it is not —and thereby to develop an accurate factual understanding of it, both in Washington and for public opinion generally. There is all sorts of nonsense circulating around about it. There is great danger in the fact that one faction of well-meaning but credulous Americans already thinks the plan is for Washington and Moscow to kiss and make up, that goodwill and brotherly love between communists and noncommunists are supposed to break out all over the place. None of the men who drafted the agreements at Moscow and Peking had any such intention. To let these notions gain ground would cause one group of gullible Americans to expect far more of the detente than it could possibly deliver —and thereby pave the way for disillusion and disgust when things go contrary to what they expected. An opposite disillusion would cause another group of Americans—already has caused them—to smell treason in the air, to think the United States is selling out to the communists, that we will be the willing vitcims of another characteristic communist deception. In their anxiety, this second group is ready to tear down the structure of detente that the governments are cautiously trying to build.

The facts about the detente, and what the big powers say they hope to do in order to prevent nuclear war, are made abundantly clear in a remarkably candid series of statements and documents given out at the Moscow summit meeting, but little noticed. The better newspapers carried them. But for most people, they were lost from sight in all the swirl of glamorous television pictures of toasts and ceremonies. The statements by both sides said categorically that the detente was an experiment, that both sides would keep their powder dry, that either side could abandon the experiment if the other party, in its view, did not live up to the undertakings. There were four separate warnings given by Kissinger at Moscow, in public so that the texts were available to both sides, that the United States had not suddenly "gone soft-minded." That he "does not exclude" a return to the cold war "if the hopes on either side [prove] to be incorrect." That the Moscow agreement represents only a "goal," based on a mutual interest in how to survive without nuclear war. That "we have no illusions" in making it. That "we recognize that Soviet ideology still proclaims a considerable hostility to some of our most basic values." These are direct quotes from Kissinger. This same realism was stated by the Soviet leaders. The agreed prospectus for detente, in its fundamentals, is simply this: That conflicts between the communist and noncommunist worlds will continue, but that we will not fight over them because that means nuclear war. And that both sides will henceforth adopt a series of specific restraints in their dealings, particularly in local wars where military clashes could escalate.

I will try to be more specific about the other challenges. But we will get nowhere if sections of the American public expect the millennium and are brutally disillusioned when conflicts continue to break out—or if other Americans expect the inferno and are ready to tear the detente down before it gets started, be-

cause of fear that we will be tricked into lowering our guard. In the communist dictatorships, public opinion cannot wreck a venture that the government decides upon, like the detente; but in the United States it can. So we must do better to get rid of false notions about what to expect from the important experiment which began at the Moscow and Peking summit meetings.

Challenge #2

To change American policy around the communist perimeter from open, vigorous support for repressive, right-wing, strong-arm dictatorships of the right to a new and very different relationship. Henceforth we should treat these governments as we do the Soviet and Chinese communists under the detente: deal with them where we need to, with an open and honest reluctance, making it plain that in no way do we support political repression, making it clear that the United States stands for popular government. We take this position with communist governments; we should equally stand on the same ground with right-wing dictatorships, but we haven't really done so.

For 20 cold war years, dictatorships of the right have been the chosen instruments of American policy in holding the line against communist expansion. Let me call the roll: South Korea, Taiwan, South Vietnam, Indonesia, Thailand, Pakistan, Iran, Turkey, and Greece. It may well be that this was a necessary expedient in the early years of the cold war, when the old colonial empires had been expelled and the United States was only beginning to move into the vacuum, and when the ability of third countries to resist communist subversion was very low. Soviet or Chinese agents and forces in third countries might have seized power by telephone, so to speak. It's at least understandable that, as late as Lyndon Johnson, American presidents decided it was too dangerous to support or permit reform governments or popular governments in the middle of a war. Under Asian conditions, Johnson thought new political leaders would be ineffective and soft in suppressing communists, and might even have given in to them. It was understandable, I say, that President Johnson thought that way, but it was a disaster. I argued the case with him candidly, once, and I thought he was going to hit me. He felt that strongly about it.

Why was his policy a disaster? For two cold war decades, the United States promised freedom and helped to impose tyranny on a long list of smaller countries. We supported their national *independence,* but at the expense of their personal and political *liberty.* We accomplished our military purpose of helping them keep the communist forces at bay—but at a very high political cost. For the United States failed in its political purpose by seeming to connive with dictators in a conspiracy to destroy the freedom we were pledged to save. By the time we went into Vietnam, the American record was well known and understood from one end of Asia to the other. The Communists saw to that. We were branded as the country that equipped dictatorships with lavish supplies of American guns and dollars, with which the dictators defended themselves against their own people—defended themselves not only against communists but against their own censored and punished, angry and jailed political opposition that only wanted popular government.

Actually, the South Vietnamese people understood the communists pretty well by this time. They had learned that, if they let the communists alone, the communists would let them alone (until the latter part of the war). But just let one of them cross the communists by some

overt action and his body would be found in pieces, strewn around the village next morning. That was clearly understood. The villagers knew communism was bad business. But their own dictatorship in Saigon was the tiger actually on their backs. It never let them alone. They feared the iron heel of their dictatorship more than they feared the communists, and they soon came to blame the United States for fastening that dictatorship upon them. So the villagers could be drafted into the South Vietnamese army but they wouldn't fight. They had no motive to die for the generals of Saigon. So they were like an army of passive resisters. They could be led to war but they wouldn't act like soldiers committed to their cause. Worse, from our point of view, they wouldn't tell us who the enemy was and where we could find him. We didn't know one gook from another and so we often killed friend and foe alike.

I emphasize this at some length because so many Americans haven't gotten deeply enough into the question to grasp why this was a *political* war more than a *military* war, and that *political* mistakes were what chiefly caused our *military frustrations.* Now to come to the point. We are moving into detente, into a climate of political relaxation. Already the American client dictatorships are bracing themselves against the revolts that they expect peacetime to bring. They have actually been tightening their repression. In the past 2 years, martial law has been declared in five of them: South Korea, South Vietnam, Thailand, Pakistan, and Greece. Serious student revolts have taken place in four, South Korea, Indonesia, Thailand and Greece, and in one of them, Thailand, the heads of the dictatorship were sent packing—to the apparent annoyance and concern of the United States.

So as we move into detente, the persistence of the American client dictatorships tends to encourage revolution, instead of checking it. These dictatorships are making revolt morally legitimate instead of illegitimate. They are creating opportunities for the local communists, virtually inviting the big communist powers to intervene or to make capital out of the American embarrassment. Many of these dictatorships continue to spawn corruption, personal and social, and they are giving the United States an evil name from one end of the third world to the other. As the world moves further into detente, this won't go down any more. Unless we do something quickly, the new regimes, when they come, will be bitterly anti-American and may be even pro-communist. We can still rescue ourselves and our foreign policy on this count. Despite our political mistakes, we still have a lot of credit with these people. But it won't be easy to put our policy into reverse. We shouldn't walk in and topple dictatorships at will, even though we could in many cases, quite easily. But as I said earlier, we can reasonably change our approach. We can be cool and reserved. We can show an honest reluctance to let our guns and money and prestige be used by dictators against noncommunist political opposition. We can order our embassies not to throw their arms around the dictators and embrace them enthusiastically in public, as if the cause of liberty depended on them. We could still reverse, I think, the depth of anti-American bitterness among our real best friends in these third countries who believe in our cause, in liberty.

Challenge #3

To reverse our cold war priorities, and put political necessity ahead of military necessity. Up to now, all an American official needed to do was to invoke military necessity in order to override the political objectives of our foreign policy.

The State Department will have to recover the primacy of civilian diplomacy, which it lost to the military thinking of the Pentagon at the onset of the cold war.

Challenge #4

To establish a sophisticated management *of detente.* All three super-powers will have to use *restraint* in future tests of strength between them. The key to the new order is that word "restraint," as applied to the super-powers. It appears again and again in the speeches of Kissinger, Brezhnev, and Chou En-lai when explaining their concept of the new dispensation. "Restraint" really means the opposite of the typical cold war confrontations when the communist governments often tried to push the east-west line backward, maneuvering with reckless disregard for the fact that they were dangerously close to provoking war. And *we* as the defending powers put counterpressure on them right up to the borderline of war itself. In detente, both sides are expected to avoid actual military moves against each other, actual military confrontation. You will say that the military alert called by President Nixon when he thought the Russians might send troops to the Middle East, looked like a violation of this. It may or may not have been a mistake but it was probably not a violation, because the agreements permitted this sort of thing in the transition period from cold war to detente as I will explain later.

Restraint also means that neither side should intervene militarily in a third country in such a way as to force the other side to intervene on the other side.

Restraint was defined at Moscow to mean that one great power should not seek a "unilateral advantage" over the other.

Restraint means not letting a local government drag a super-power into a regional war to serve its own purposes. Mr. Nixon made this point at Moscow, and it was obvious that he had a sharp memory of President Thieu of South Vietnam having both him and Lyndon Johnson over a barrel.

If detente is to work, this catalog of restraints will have to be managed with all the intelligence and honest bargaining that both sides are capable of. Without good management, carefully worked out in advance, the plan is likely to fall apart.

Challenge #5

To conduct, and survive, a difficult and trying period of transition *away from cold war into detente.* The cold war and its tactics are far from dead, and are bound to continue into the transition period. The strategy of detente is far from established, and for a long time we will have to cope with a mix of the two, and like oil and water they will not mix well. President Nixon at Guam told us that the transition might take 10 years. In the meantime, he said, the United States would have to deal with each incident that came up on its merits. Kissinger at Moscow said the new rules for detente couldn't get going for some time, and might not apply to already existing conflicts between the U.S. and the U.S.S.R., perhaps only to new conflicts. This was anticipating the worst, in the matter of orchestrating a difficult transition. He seemed to hope for better, but didn't want to encourage the hopes of others lest they be dashed.

It surely is expectable that the transition from a known to an unknown, in international relations, is bound to cause situations where each side suspects the other of violations of the new, untried rule of restraint. We cannot expect

everything to go as well as the first stage of the Arab-Israeli negotiations where the U.S. and U.S.S.R. seem to have threatened each other with sending troops into the area—and then quickly backed off and resumed cooperating. We may blow hot and cold like this for some time. To manage this kind of confusion will take all our wits, and test our ability to keep an eye on the main goal.

Challenge #6

To change national attitudes *to conform to the new order and to develop new negotiating techniques, appropriate to it.* The two are related. It's going to be very hard for officials in Washington and for the American public to learn to negotiate in a tense situation without a gun in the hand. It has been too easy, in one sense, for a great, proud, determined country like ours to deal with other countries during the main part of the cold war when we had the clout. No matter what the issue under negotiation was, if the other fellow balked, be he adversary or ally, we could always pull rank and power on him. We had the money. We had the guns. If the other side got stubborn, we rarely hesitated to bring power to bear.

Well, it isn't going to be like that in the tomorrow. Not if detente is to have a chance. We will have to come down nearer to the level of the less powerful countries, big or small, and take our lumps and frustrations as well as our successes. We will have to learn to use the much more difficult arts of persuasion, instead of clout. We will have to arrange mutual agreements, based on the national interest, not just of ourselves, but of both sides. We will have to show concern for the other fellow's needs and desires as well as our own, instead of singlemindedly driving our own steamroller as we are accustomed to do. That won't be easy, and that is probably the understatement of the afternoon.

Challenge #7

To face the fact, emotionally as well as strategically and tactically, that in terms of military power the United States is no longer number 1. We can no longer enjoy the satisfactions and prerequisites of being clearly more powerful than anyone else. Perhaps the most dramatic single moment in recent current history came when Kisinger persuaded President Nixon that the United States could no longer deal with the Soviet Union as an inferior power; that we must henceforth deal with the Russians essentially as equals. This was hard lines for a self-confident government and people. We always have had the visceral feeling that, in spite of the oncoming nuclear era, we were smarter and with our technology and determination we could stay ahead; that our nuclear weapons would always be bigger and better than the Russians' nuclear weapons; that in a crunch we could use superior power to force our will on the communists.

I don't know how, or when, Kissinger sold Nixon on the new fact of life which the nuclear physicists had anticipated all along—that both sides had plenty of overkill. But Kissinger did it. And the American people and their politicians have yet, I think, to face the fact with equal honesty. We can no longer stand up straight, raise the flag, sound the trumpet, look our adversary in the eye—and have him quail and reel back, and slink away in front of our righteousness. It won't happen that way. To repeat: it is one thing to negotiate on the basis of our own national interest. It is quite another to get used to consulting his national interest too, and in the midst of the toughest kinds of bargaining. It will be extremely difficult for stubborn ad-

versaries to find common ground for common interest. But that's what we now have to do.

Challenge #8

To avoid the great temptation to play China and the U.S.S.R. off against each other, openly. We recognize the value to the West of the broken communist monolith, and we can benefit from it quietly. But to play the divide-and-rule game would outrage them both, and probably destroy the detente, and in the end might even drive them back together. I recall one of the civilian bright boys in the Pentagon saying irreverently, some time back, "It took us two years to get it through the skulls of some military types that the communist monolith had broken. Now they think it is going to be divided forever."

Challenge #9

To avoid both the fact and the appearance of a super-power dictatorship over the rest of the world—of the great powers lording it over the small. This also could wreck the whole enterprise. Both Washington and Moscow have said their agreement was not directed against any third power. That includes China. They will have to show, in action, that they mean it.

Challenge #10

To face the growing confrontation between the rich and the poor nations, and keep it from exploding into international civil war. This, too, could tear the detente apart. Even now this cloud is bigger than the proverbial man's hand on the horizon. Only this week Robert McNamara, President of the World Bank, commenting on a House of Representatives vote to deny United States contributions to the Bank, said that vote was "an unmitigated disaster for hundreds of millions of people in the poorest nations of the world." And on the same day, Scotty Reston commented in the *New York Times:* "* * * the heaviest blows are falling, as usual, on the poor of the earth."

The poor countries are just beginning to discover the clout they would have, if they united forces as the oil countries have just done. It would go far beyond oil. We are not heading for accommodation now. The wealthy countries, led by the United States, are turning a stony face toward countries where angry and ambitious politicians are starting, as the poor always do, to raise the irresponsible and passionate cry of "Share the wealth." Like the labor leaders and populists of half a century ago, they could cause enough trouble to win a confrontation in the end. We are facing another form of cold war between rich nations and poor which could dominate the last quarter of this century. Just torment yourself with this moral and political and strategic dilemma at three o'clock in the morning. I won't pursue it into the quagmire, but will leave it with you as one of the historic problems that is haunting the future of detente. The only way to avoid it is to give better trading terms to the countries of the third world that have been held back by the economic power of the wealthy. Otherwise the communist powers will make common cause with the third world, and off we go to the cold war again.

Challenge #11

To stop the next upward spiral of the nuclear arms race, which has already begun. Mercifully, it can still be checked by success in the second round of SALT talks. There are two nightmares attached to this topic. The first is the real peril that either the U.S. or the U.S.S.R. might develop a first strike capability—or make

such progress that the other side thinks it has. You probably have thought about the terror that this would cause. The nuclear age has been relatively stable since Hiroshima and Nagasaki, because both we and the Russians developed a second strike capability. Neither dares hit the other, because it would be devastated in return by weapons hidden safely underground or under the sea. I've been trying to find a good analogy for this situation and the best I can do is a modification of the *High Noon* story. You and I stand out there, in the middle of the empty street, with guns ready and both of us quick on the draw. But up hidden behind the curtains on one side of the street is a friend of yours, with a rifle trained on me. And up beyond the curtains on the other side is a friend of mine with his gun aimed at you. That is a stable situation, such as we have now. Each of us had a "second strike capability." Neither of us could shoot the other without being killed in return.

Now remove the two men from behind the curtains. That's a first strike situation—shoot first or be killed. Another spiral of the nuclear arms race and this is the situation which Kissinger rightly fears we would face.

My other nightmare is the dilemma that we, in the United States, already face right now. Here is Kissinger, personally in charge of the SALT talks, having brought them through the first round quite well, and facing the more difficult SALT-II. And out of the Soviet Union comes a cry for help, a cry for liberty. Solzhenitsyn takes the leadership of the poets and intellectuals who have boldly defied the Soviet Government. And now the Soviet Union's greatest physicist, Andrei Sakharov, with similar courage, putting his life and his family on the line, calls out publicly to the United States: "Stop the detente! Stop dealing with the Soviet Government until it has established liberty!" Solzhenitsyn agrees. What should we do? This might, just, be one of those great moments in history when the flame of liberty strikes dry tinder and the course of tyranny is changed. We can't be sure it isn't.

Well, that's it. Not the whole list of challenges, as one reporter sees them, but enough to give you a good sample. If anyone is to make sure that detente has a decent chance, it will probably have to be the Americans. We have our homework cut out for us.

DISCUSSION

Shouldn't the press do a better job of telling us about these challenges you have listed?

Mr. Davis: Yes. It's very difficult to write about the future, or talk about it, for the very simple reason that it hasn't happened yet. There are all those options and possibilities and we don't know which one will turn out to be the one which actually takes place. Even those newsmen who would like to do this kind of thing find it almost impossible to do so in the context of a newspaper or a television commentary. It's too speculative. Editors and readers usually are not interested. I wouldn't have a chance of getting this speech published in a newspaper. It's dealing with uncertainties that are out ahead. That's a serious flaw, and we just frankly have not learned how to solve it.

Aren't the Russians likely to keep on applying pressure to small countries, in spite of the detente? Haven't they done so in the Middle East?

Mr. Davis: I would guess, as you suggest, that the Russians probably will continue to play their game, or try to, during the period of transition toward detente. I can only say what I tried to say a few moments ago about their military

threat of last October in the Middle East. This is the first case that has come up under the new ground rules of detente. It is the first case at the beginning of the period of transition when we can expect that the cold war is going to continue.

If one side makes a military move or threat, as the Russians did last October 24 in the Middle East—I see no reason at the moment to question the fact that they made a threat, but I don't know exactly what the character of it was—then what happens in the transition period is that the other side comes in with a counterthreat, just as we did with our own military alert. So instead of having one side sweep the boards, or the other side sweep the boards, right away you get yourself into another big power stalemate situation, from which theoretically the ground rules of the detente are supposed to spring. The theory of the detente is that we'll educate ourselves fairly quickly to realizing that, if one side does play that kind of a game, which throws restraint to the winds, the other side will immediately do the same thing. So here we'll be again. The hope is that we'll have sense enough ultimately not to get caught in these dangerous confrontations, but we have to be prepared to endure them for awhile yet.

Was economic weakness in the Soviet Union a main cause of the adoption of the detente by the Russians?

Mr. Davis: I certainly would include that as one of the three main reasons. I would guess that number one was the break with China. The Russians can't risk trouble on two fronts. Number two, in my opinion, is the fact that the U.S. and the U.S.S.R. are trembling on the brink of another upward spiral in the nuclear arms race, which has already started, but which we can still stop in the current SALT talks. It's going to be enormously costly to both sides if we really get into it. And it has the nightmarish possibility that one side or the other may decide that its adversary has developed a first strike capability. There is where the nightmare comes in—the burning question of which one thinks the other is going to shoot first. That is a trigger-happy, unstable situation that we are likely to get into if we go with the next spiral of the nuclear arms race. Well, the Russians know this, and we know this. And they've discussed it, and Kissinger's discussed it, and I think this is a prime reason why they have come into the detente.

As my third reason, I would put the economic need of the Soviet Union for more trade and getting business machines and that kind of thing from the West.

Will the detente merely be a kind of international dictatorship by the two superpowers? Would that wreck the NATO alliance?

Mr. Davis: I am a little ambivalent about that. There certainly is no doubt that the allied countries in Europe are seriously worried about the possibility of a two-power super-dictatorship—that we and the Russians will just get together and carve things up to suit ourselves. We will have to prove by our actions, for example by supporting the Europeans in the new strategic talks between East and West Europe, that we back our allies. We say we will do it. We've got to prove we will do it. Otherwise the detente will create such ill will that your alliances will become worthless. Kissinger knows this, and he has got to make an exceptional effort to prevent serious friction with Europe. I agree there is a very serious danger that NATO and the detente will run on a collision course. I think that it can be prevented and I understand from Kissinger that he intends to do the most that he can to keep this from happening.

Saville R. Davis (second from left), lecturer at GAO on January 30, 1974, with Comptroller General Elmer B. Staats; on left, Charles D. Hylander, Deputy Director, International Division, and on right, E. H. Morse, Jr., Assistant Comptroller General.

There are rumors that Brezhnev is giving new missiles to Cuba. If true, what would that mean?

Mr. Davis: I would say that if that happened, it would be in the spirit of what provoked the first Cuban crisis—exactly the opposite of detente. I have no information on this. But I would not have the slightest doubt in saying that, if anything of that sort were to happen, we would be right back in the full course of cold war, and in just the same kind of situation that we were in when John Fitzgerald Kennedy had it out with Khrushchev.

Hasn't the press failed to inform the public about the worsening rich-nation-poor-nation confrontation?

Mr. Davis: Yes. Hardly any Americans know about the series of UNCTAD Conferences (United Nations Conferences on Trade and Development) which have shown how rapidly the tensions are growing. The United States and others of the well-to-do Western countries have been stone-walling. I have been told, although I wasn't there and I haven't seen the documents, that the instructions to the American delegation at the Stockholm conference were to yield on nothing, lest if we give in a little to these people, they'll break the door down. So we have dropped the portcullis and pulled up the drawbridge. We are rather like the wealthy men in the old Union League Club, sitting in the windows and saying, "Oh, those workers out there, they're trying to organize, but they haven't got any clout." They found out differently, and I'm afraid that we will find out differently.

We've got a really tough problem to work out here, because as a country we are not in the mood at the moment to help enormously poor countries that are increasing their populations all out of bounds, and that are not putting their houses in order at home as they ought to be doing. We're not going to put them on our dole or hand them some slice of our wealth, or even a slice of our trade. It's going to take great leadership and statesmanship on our part, even to face the problem, let alone start doing something and get enough votes from

Congress to do it. I feel pretty grim about it, and I figure that we've got our work cut out for us.

Do the American people understand the concept of detente, and what is their attitude toward it?

Mr. Davis: I wish I could say they did understand it. It seems to me the articulate people on the subject are the people on the right who say that the detente is another deception by the Russians, and the people on the left who say that peace is breaking out and that now at last we will be brothers with the Russians. Even the people in the political center watch President Nixon announcing his military alert in the Middle East and are puzzled and very concerned about the whole thing.

That's why I put down as my number one challenge that we accurately tell the American people what the detente is and is not, what it is supposed to do and what it isn't supposed to do, so that they will realize that it is going to be rough, but that maybe it will work. And if it doesn't work, we're keeping our powder dry.

What has been the impact of Watergate on international policy and the foreign scene?

Mr. Davis: I may surprise you on that, having just been off around the world for 6 months. It has been much less than we here would suppose. The rest of the world has the same kind of ambivalent attitude toward the United States that I was describing in Southeast Asia. They love us and hate us. You can hardly find a person, and this includes well-educated, well-informed people, who doesn't think the CIA half-runs the United States. And you almost can't find anybody who doesn't think that the United States is an unbridled and rather wild sort of country; that it still is almost back in the frontier days of the western movies so they almost take things like Watergate for granted. They're not much upset about it. They're not nearly as much concerned as Americans are, because they shrug their shoulders and say —that's the Americans again, turbulent, rather crude and unpredictable. This is an oversimplification, but it's what I found.

Much of the Nixon foreign policy has the stamp of Kissinger on it. What is the relationship between them and where do we go when he is gone?

Mr. Davis: This, of course, is the number one question so far as I am concerned. I suppose that maybe I would be in as good a position as anybody to know what's going on in the Kissinger-Nixon world. I happen to be from Boston, and those of us who live up in that part of the world knew Kissinger long before he came to the White House. So I might be expected to know what the relationship is between the two men who started the detente. The plain fact of the matter is that I do not know.

I do not have any evidence which I would consider reliable. I only have a set of suspicions that are not more than guesses. I could tell you of a variety of occasions when the President and Kissinger talked quite differently to us, when explaining major actions of foreign policy. The two men are obviously of very different mentalities, yet the relationship between the Secretary of State and the President is probably the best kept secret in Washington. Unlike Nixon, Kissinger has talked candidly with the press, and has tried hard over the years not to deceive us. If he can't give us an answer, he will walk around the mulberry bush a couple of times, and by the time he's through, we've got an idea of broadly speaking how he thinks about something. We in the press

have got the measure of the man pretty well.

But the public has not. And to the public he is a loner—brilliant but not a leader. And to the international world, he is the man who sits down with enough time with Brezhnev and Chou En-lai to be able to make some convincing, or we hope convincing, arrangements with them. As Secretary of State now, he will have to come out of the cocoon. He no longer can get on just by doing the job alone, even though he seems to have done quite well in the Middle East up until now. Because if what I've been saying here means anything, we've got to have a public and a democracy which has a reasonably good idea of what he's trying to do, and what the United States is trying to do, and what the complex and sensitive new situation is between us and the Russians and the Chinese in order to be able to make the detente work. Otherwise, things will go wrong. A national policy has to have national roots. So I think I share the implication of what you're saying—that we don't really know whether Kissinger will be able to make the transition from loner to leader, or the degree to which Mr. Nixon either can or will make the similar transition with him.

The new Secretary of State obviously is beginning to work much more closely with Congress and with other groups of people—even with his old liberal colleagues at Harvard. But as to whether he can succeed, we've got to keep our fingers crossed and wait—and hope.

Uses GAO Reports In Teaching

. . . yours is one of the few letters I have ever received from a government agency that indicated anyone had really listened and had looked into the matter! As I have taken up this concern also with Senator Case, I am sending him a copy of this letter, and would like him to know how helpful your office has been. I had written to the GAO because, after some years of being on the mailing list for GAO reports, which I use in my teaching, I have acquired great respect for the quality of GAO work.

Professor Rinehart S. Potts
Glassboro State College,
New Jersey,
to Gregory J. Ahart, Director,
Manpower and Welfare Division
October 17, 1974

Frederick Seitz
President,
Rockefeller University

Dr. Frederick Seitz has been active for nearly 40 years as researcher, teacher, author, adviser, and administrator.

He began his teaching career as a physics instructor at the University of Rochester after receiving his Ph.D. degree from Princeton University in 1934. He advanced steadily to more challenging positions in teaching and research at the General Electric Company, the University of Pennsylvania, the Carnegie Institute of Technology, and the University of Illinois.

In 1962, while serving as head of the physics department at the University of Illinois, Dr. Seitz also became President of the National Academy of Sciences, an organization of scientists and engineers which acts as official adviser to the Federal Government on matters of science and technology. He held this position until assuming the presidency of The Rockefeller University in 1968.

Dr. Seitz has also served as director of the training program, Clinton Laboratories, Oak Ridge, Tennessee; science adviser to NATO; chairman of the Naval Research Advisory Committee; and chairman of the Defense Science Board.

He holds honorary degrees from over 20 colleges and universities. He has received the Franklin Medal, the Herbert Hoover Medal, the Department of Defense Distinguished Service Award, the NASA Distinguished Service Award, and, in 1973, the National Medal of Science.

Dr. Seitz is a trustee of the Rockefeller Foundation, Lehigh University, the Institute of International Education, the Woodrow Wilson National Fellowship Foundation, and the Citizens Commission of Science, Law and Food Supply. He is a Fellow of the American Physics Society and a member of the American Academy of Arts and Sciences, the American Society of Metals, and the American Crystallographic Society, among others. He is also the author of three books about solid state physics.

Our lecturer today will add a new dimension to this series when he speaks on the subject, "Research and Development: Our National Policy." I can think of no one better qualified to speak on this subject than Dr. Frederick Seitz, president of Rockefeller University, who has been one of the most thoughtful leaders in the Nation on this subject and whose record of accomplishments is indeed an outstanding one.

I have known and worked with Dr. Seitz for a good many years. I saw him frequently in his capacity as Chairman of the Defense Science Board. He was active in supporting the movement which brought about the enactment of the National Science Foundation Act of 1950. When I served as an official of the Bureau of the Budget, I found Dr. Seitz a helpful adviser on many matters, and I sought his counsel particularly after he became president of the National Academy of Sciences, where he served for many years.

He is now, incidentally, serving as a member of the Comptroller General's Consultant Panel and has consulted with GAO on a number of matters involving research and development. Despite his heavy schedule as president of Rockefeller University, he has been willing to take the time to review our work plans in the area of science and technology. Last year he spent a full day with us going over our program in detail and offered many helpful suggestions.

In addition to the capacities to which I have already referred, Dr. Seitz has worked as a research physicist in industry, taught at several universities, and served as Chairman of the Naval Research Advisory Committee and Scientific Adviser to NATO. Among the numerous honors he has received in his long and distinguished career was the National Medal of Science Award from the President of the United States in 1973, and I was happy to be on hand for that occasion.

—Comptroller General

Research and Development—Our National Policy

Dr. Frederick Seitz

Our national policy relative to research and development has been in the process of transition for approximately 10 years. It is now possible to discern the outline of a new order, which I will try to describe. While it is not wholly acceptable to the present generation of scientists, circumstances will probably require that they become acclimated to this new order, since it reflects widespread public attitudes supported by Congress and the White House. Fortunately there will probably be some reversal in these attitudes now that a new administration has entered the White House. I suspect that this reversal will not be truly substantive, but it will have psychological benefits, since the language used will be somewhat different.

Personally, I feel that I have experienced a full cycle of change in the nearly half century in which I have been closely associated with the scientific community. The term cycle may not be appropriate since the pathway traversed is actually somewhat helical in nature—one never really returns to exactly the same spot.

Background

While I appreciate the fact that the principal interest within GAO lies in the management of research and development, I find it impossible to do justice to the topic without providing a brief historical note.

A dual interest in science, as a revelationary discipline and as a source of useful knowledge, runs very deep in European history and culture. In our country, interest in the first aspect—namely science as a source of enlightenment—has been relatively shallow. By the time of Isaac Newton some 300 years ago, both the purely intellectual and the practical values of science were widely appreciated in Europe—an appreciation which grew enormously all through the 19th century as science effected a major revolution in European civilization. In the United States, corresponding appreciation of science did not develop until the turn of the present century, when such institutions were created as the National Bureau of Standards (1891), the Graduate School of the University of Chicago (1890), and The Rockefeller Institute for Medical Research (1901). The creation of these institutions did reflect the influence of the older European tradition, but I think it is fair to say that the desire to achieve practical consequences was uppermost. In this connection, it is significant that, at about the same time, American industry took an interest in promoting science and established research centers such as the General Electric Research Laboratory, the Bell Telephone Laboratory, and the DuPont Laboratory, all designed to insure that American industry would retain a strong position in both national and international competition.

Academic Development

The growth of the widespread interest in research in the academic system also dates from the same period. All during the 19th century, most of the leading private universities focused on what might be termed "classical" education and looked upon scientific research as pretty much of an anathema. Those state-supported institutions that took a different view tended to emphasize agriculture and mechanical engineering.

In fairness to the past, I should note that there were a few significant mileposts in the 19th century, such as the creation of the Smithsonian Institution, with English money (1848), the National Academy of Sciences (during the Civil War), and Johns Hopkins University (1876). Moreover, Princeton University did give a considerable welcome to Joseph Henry, and Yale University sustained Willard Gibbs. However, the effect of these events on the nation was quite secondary at the time.

I must emphasize that, from colonial times onward, our nation did have an intense interest in engineering, or more accurately, in the applications of technology, whether generated at home or abroad. It was characteristic of our national approach to technology that we tended to minimize, and even ridicule, intellectual frills. In fact, I think it is safe to say that generally our engineering schools did not completely come to terms with science until 30 years ago or so.

World War II

A really massive change in public attitudes toward science occurred during World War II, when the nation discovered that a pool of scientists, both native and foreign born, could perform miracles if appropriately inspired and motivated, and if given the necessary resources and an appropriate pattern of authority for making decisions. Moreover, during the war, the scientific leadership linked its goals so closely with those of the establishment that the public became convinced not only that scientists should occupy high posts where policy is determined in the administration, but also that they should have great freedom in deciding how scientific judgment should be exercised.

It is interesting to note that soon after World War II there was considerable debate in England as to whether scientists should be "on tap" or "on top," with the first opinion soon gaining the upper hand. There was much less debate on this side of the Atlantic where the scientists had emerged from the war as national heroes. Not only were they given major positions in many federal agencies, but also their advice was eagerly sought everywhere. Industrial organizations, which had previously linked "research" with "testing," proceeded to establish handsome laboratories and seek Ph.D. scientists as staff members. In brief, science and the scientists entered an era of remarkable acceptance in this country and, if it could not actually be said that they ruled the roost, there was little doubt that their advice was given very high priority in many important decisions affecting policy at both the public and private levels.

Postwar Period

It is true that a few signs of tension and uncertainty occurred in the early postwar period, as was dramatized by Robert Oppenheimer's actions, for example, in opposing the development of the hydrogen bomb, on what turned out to be spurious psychological and technical reasoning. But these incidents were looked upon as somewhat specialized or isolated, and not really symptomatic of any major break between the scientific community and the national establishment.

Indeed, any doubts that may have clouded the public mind were dismissed when Sputnik appeared in the skies in 1957, and caused the public to turn to the scientific community almost in panic. On that occasion the scientific community not only responded with alacrity, but was more than prepared to expand its responsibility within governmental circles. The expansion of the powers of the President's Scientific Advisor during President Eisenhower's second term in office is indicative of the trend. During that period no one in the Bureau of the Budget would have dared question a major recommendation of the President's Scientific Advisory Committee or of one of the major committees of the National Academy of Sciences, which worked very closely with the executive agencies.

Yet ten years after Sputnik the scientific community had lost much of its preferred position and, indeed, was facing substantial criticism—some overt, but much covert. President Johnson had decided to keep the PSAC at arm's length because he obviously did not trust its judgment in all cases. Moreover, he went personally to the National Institutes of Health to state that the agency should begin to focus more attention on the immediate problems of public health and less upon basic research for its own sake.

Change in the 1960s

The same changes in attitudes became evident in Congress during the mid-1960s. Senator Kennedy and Representative Daddario, both good friends of the scientific community, decided that the time had come to rewrite the charter of the National Science Foundation in order to place much more emphasis on the applications of science. The final version of their bill also made it possible for Congress to control line items in the budget of the National Science Foundation, in keeping with longstanding traditions that had been bypassed in the bill creating the National Science Foundation. Since then, congressional legislation concerned with the National Institutes of Health has been aimed increasingly toward the funding of applied programs, such as those related to cancer and arteriosclerosis.

Generally speaking, the trends since the mid-1960s have all been in the same direction, namely to downgrade the emphasis on science for its own sake or for its use in solving everyday problems. Scientific research in academic institutions has been influenced most by these changes, but their effect runs deeply throughout our society, as anyone who attempts to raise funds for scientific research from private sources quickly learns.

Origins of Change

It is worth taking a few minutes to reflect on this shift in focus, since it is basic to the course of events in our country in our time. What caused the transformation in attitude? Is it permanent?

A friend recently called my attention to a comment made by George Bernard Shaw to the effect that every problem has a single simple answer. The only trouble is that that answer is usually wrong. Shaw's observation is, in my opinion, entirely applicable to the present situation. Many factors have combined to turn off public attitudes and interest in the scientist in the last decade.

Perhaps at the top of the list is the fact that the public has become deeply caught up in problems involving urban issues, environmental deterioration, energy shortages, inflation, and international strife, in which the scientist can play a significant but by no means central role even when he is willing.

Also high on the list is the simple

fact, now widely recognized, that the good scientist has something in the nature of a religious devotion to his profession, which, except in times of very great national peril, dominates his thoughts and actions and compels him to be his own master. This attitude is forced upon the scientist by the type of dedication needed to advance a field of specialization. Through strong inner compulsions the scientist feels that he must use the resources available to him to advance his field, all with the faith that there will be an overall gain to society in the long run—a view for which there is ample precedent if we take into account the profound influence science has had on the course of civilization in the past few centuries. Most members of the public whose opinions carry weight with Congress respect this viewpoint. But the public also wants the scientist to show concern about the more immediate issues which affect everyday life. Thus Congress is now inclined to tie its support of science to such issues in the hope that the end result will be what, from the lay viewpoint, could be called a "better" balance.

This point of view was brought home to me with great force at a reception in Washington in 1966 when the funds for the National Accelerator Laboratory in Batavia, Illinois, were under debate in Congress. I approached a member of the Joint Committee on Atomic Energy, widely known for his previous support of high energy physics, and asked how the bill for the National Accelerator Laboratory was getting along. His response was direct and emphatic: "The trouble with you * * * (expletive deleted) scientists is that you think you are the only people in the world with serious problems." In my own mind, at least, this incident has stood out as a major milestone symbolizing the turning of the tide.

Shifts in Industry

I might add that by the mid-1950s, only 10 years or so after World War II, many industrial organizations, particularly those tied to commodity production and the consumer market rather than defense or aerospace, began to take a hard second look at their expenditures for basic research, which they had expanded with such enthusiasm in the period between 1945 and 1950. Most began a quiet pullback into areas of investigation closer to their commercial interests. Many newly created laboratories were phased out. This movement has continued relentlessly ever since. It is quite rare these days to hear of the creation of a new industrial laboratory or of the substantial upgrading of an existing one, at least in respect to basic research.

Magna Carta

Another development affecting the public's view of science was the more or less explicit enunciation of something in the nature of a Magna Carta by a significant segment of the scientific community. The issues involved developed gradually between 1940 and 1965 and finally came to the fore during the later phases of the Vietnam war. This crucial step amounted to a conditional declaration of independence from the establishment. The critical event in the development of this situation occurred at the Massachusetts Institute of Technology on March 4, 1969, when a large group of scientists, including a number responsible for some of our greatest national successes in weapons development, gathered to declare their intention of devoting their efforts in the future only to those applications of science that were, in their opinion, socially and ethically acceptable.

While there are many who would prefer to regard this event as a mere transi-

tory symptom of the anti-war agitation crystallized by events in Vietnam, I am inclined to believe that it is a reflection of something much deeper and more enduring—an endemic mood of long standing that not only separates a part of the scientific community from the nation at large, but is also a source of divisiveness within the scientific community. The influence of this mood within the scientific community was only marginally visible between 1940 and 1960, because scientists were unified by concern about the outcome of World War II. It was highly visible in 1969 because of campus turbulence. In any event, from the establishment viewpoint, this underlying spirit of dissension might be looked upon as something in the nature of an ongoing heresy. The mood of the movement is frequently expressed in publications such as the *Bulletin of the Atomic Scientist* and the pamphlets released by the Federation of Atomic Scientists.

Present Trends

What of the present and the future? One of my close friends who is high in a major agency which supports a great deal of scientific work recently said to me,

> I am well received in Congress and the Executive Offices and can get money to support basic science. I must, however, stay in my place in line and be prepared to stand along with those concerned with urban issues, consumer problems, and social security. The people on the Hill respect science and the scientists, but no longer feel that they have extraordinary priority. The budgets for the basic life and physical sciences will continue to grow, but only at the same rates as budgets in general. No one feels any longer that the scientific community merits extraordinary attention for its own sake, but only insofar as it is willing to tackle the problems of immediate concern to the public.

To speak in pragmatic terms, it would not surprise me if this viewpoint represented the norm in the United States for the remainder of the present century—barring some unusual event such as a great national or international calamity which would threaten the nation and could obviously be mitigated only by substantial unified action on the part of the scientific community. This viewpoint could also be influenced by some unusual scientific event, such as discovery of an extra-terrestrial form of life, which generates in the public mind a remarkably new scientific challenge. The successes of science since 1940, including those of the space program, are too deeply embedded in the public mind to permit a significant retrogression beyond what we have experienced to date. Moreover, our national technological strength will continue to be science-based and will make it natural and, indeed, mandatory that science remain alive and at least as healthy as it is at present.

Fewer Scientists?

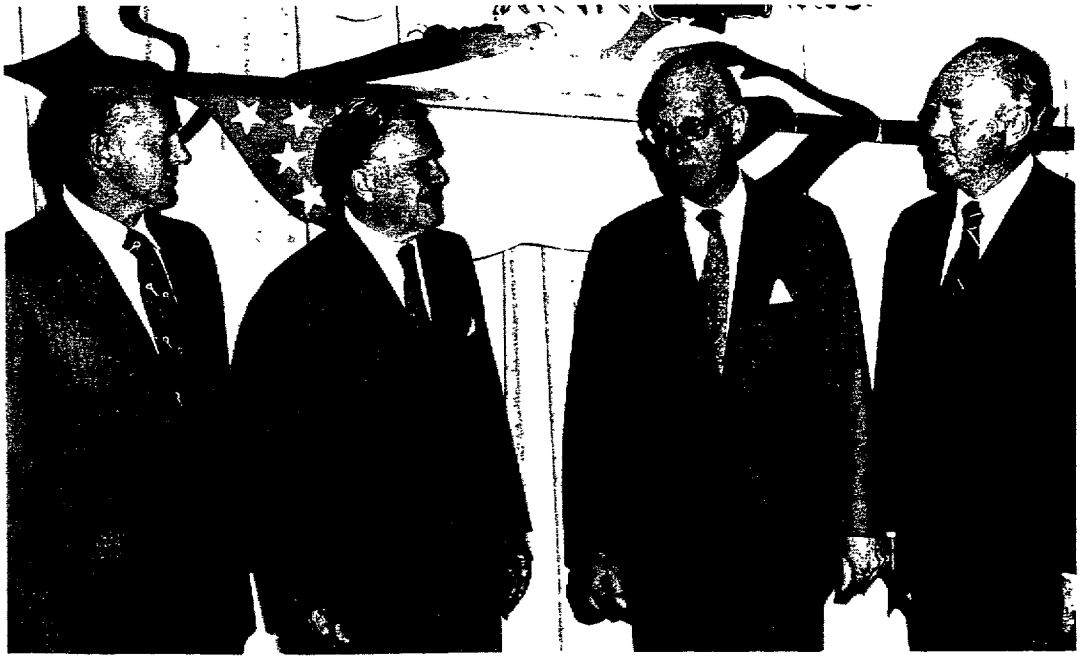
In making this statement I would like to offer one major reservation. The number of highly trained individuals engaged in significant basic scientific work may well decline rather than grow in the future, in spite of the growth of budgets. My reason for saying this is based on observations of the irreversible rise in the costs of maintaining a significant scientific endeavor, whether pure or applied. The days in which a brilliant experimental scientist could make a great frontier discovery with a few thousand dollars worth of equipment and a small supporting staff are all but over. Almost all frontier research is now "big science," and the trend will grow. Generally speaking, the truly creative investigator will require equipment with a value in the million dollar range and a running budget to match. Moreover, the per

capita needs of this group will probably grow significantly faster on a percentage basis than the per capita growth of the GNP or the growth in federal R&D funding.

This trend is already well marked in fields such as astronomy and high energy physics, where only a relatively small number of the most outstanding individuals have access to the equipment most likely to expand the major frontiers. The trend, however, will grow in all fields. It seems likely that most of those trained for research in the scientific professions will either serve as supporting staff in teams led by the most distinguished leaders or will carry out independent research that increasingly becomes of peripheral value to the main frontiers of science and is an adjunct to other functions, such as teaching or routine testing. This state of affairs will represent something in the nature of a reversion to the situation in Europe in the earlier days of science when relatively few individuals had access to laboratories and equipment. One of the remarkable facts about science in the years between 1940 and 1965 was that most earnest investigators in most fields could work relatively close to the frontiers with what are currently regarded as modest budgets. It is hardly necessary to add that opportunities for making important discoveries by what are equivalent to string and sealing wax approaches will be rare and not typical of science as a whole. In this sense we will never return to the situation which prevailed so widely before 1940.

Management

Let me turn now to the management of research—which currently is the topic of much discussion in policy planning circles and is a field characterized by various degrees of polarization. Some mem-



Dr. Frederick Seitz, President, The Rockefeller University, lecturer at GAO on November 4, 1974 (second from right); on right, Comptroller General Elmer B. Staats; on left, Richard W. Gutmann, Director, Procurement and Systems Acquisition Division, and James E. Webb, former Administrator, National Aeronautics and Space Administration.

bers of the scientific community firmly believe that, if scientists are provided with money adequate for their basic needs, they will more or less automatically carry out investigations that will furnish the basic information needed to solve the practical problems of most interest to the public. To support their view these scientists point out that many of the most dramatic military successes of World War II emerged from application of the basic knowledge available in 1940 in fields of science such as electromagnetic theory, atomic and nuclear theory, and microbiology. Most of this pool of knowledge had developed quite naturally out of research carried out by the scientists without an applied goal explicitly in mind.

Some members of the public feel that, although there is truth in this viewpoint, the scientists expressing it leave out the fact that between 1940 and 1945 essentially the entire scientific community turned its attention to practical problems and abandoned much of the search for basic knowledge for its own sake. This group is of the opinion that the basic research of the scientist will not be put to adequate use unless he also takes practical applications seriously as an integral part of the overall endeavor.

Let me attempt to come to grips with this and related matters by emphasizing that we are dealing with a cluster of issues—a cluster which in fact will not be resolved unless means are found to diminish much of the polarization. We must attempt to encourage discussions in which the various points of view are represented by flexible, informed, and open-minded individuals, a situation not easy to arrange these days.

Areas of Focus

As has been the case for a number of decades, science and its applications are of interest to a number of funding organizations, among which are the federal and other public agencies, private philanthropic organizations and individuals, and industrial organizations. Similarly, the areas of interest are varied. The principal ones are those related to (1) education in science and technology, (2) specific applications, such as to fields of medicine, human behavior, communications, or space technology, and (3) basic science, either for enlightenment or for the development of a pool of knowledge relevant to large areas of technology.

While our basic interest here is related to federal policies, let me deal briefly with the other cases first.

Industry

Industrial organizations clearly have their own internal rules concerning research oriented toward specific missions or toward the accumulation of basic information relevant to their areas of interest. Along with research in their own laboratories they may support work in academic or other nonprofit organizations, either to help in the training of appropriate manpower or to complement their own contribution to the pool of relevant knowledge. Such industrial support of institutions does much for the good of science since it needs multiple sources of support and as much freedom of action as possible. I sincerely hope that this type of support will continue, granting that industry will continue to be guided as much by pragmatic as by philanthropic reasoning.

Private Philanthropy

The attitude of private philanthropy, other than that of industrial origin, toward the support of science seems to be in somewhat of a transitional stage. While I would not go so far as to say that there is a tendency to turn away from science, or more specifically basic science, there is on the whole a trend

toward increasing emphasis upon scientific work specifically oriented to relatively specialized goals. Most fields in the basic physical sciences find it very difficult to obtain private support. One reason for this probably is the belief that such sciences are adequately funded by the Federal Government. In addition, there is a frequently expressed viewpoint, which emerged in the last decade, to the effect that society may need a respite from the advances in science, except possibly in restricted fields that have a very explicit link to problems of immediate importance, such as patient-care, childhood learning, nature conservancy, or population control.

There is also little doubt that the campus disorders of 5 or so years ago discouraged the support of education, including that related to science. Fortunately the new constructive mood on our campuses bodes well for a change in public attitude.

I deeply hope that the private philanthropic organizations will resume their interest in the support of basic science in cases where that interest has dwindled. Our civilization, whose advance and possible salvation are now irretrievably dependent upon the products of science, faces a growing series of problems of great complexity which can be solved only with the help of more, rather than less, basic knowledge of the type produced by the most capable scientists working in directions determined by their own inner logic. The importance of private support for such work has increased rather than decreased in the past decade because of the increased ambiguity of federal policy. Private philanthropy remains essential to the evolution of good science in the United States in spite of the support provided by federal sources in recent decades.

Federal Policy

What about federal policy? As I stressed earlier, public attitudes toward public support exhibit an increasing tendency to emphasize the practical—that scientists should be put to work on "real" problems and that science for its own sake should be deemphasized. Although one can readily understand that most individuals are more interested in the practical results of science than in the enlightenment derived from it, I am very strongly of the opinion that the end result of the present trend could be disastrous for all concerned—the public and the scientific community—unless the programs are carried out with a great deal more wisdom than is being shown at present. Perhaps the greatest problem we face in introducing a rationally balanced solution to this problem is that of reducing the rigidity of viewpoints which have emerged. Not least is the need for the scientific community to come to terms with itself in the light of public expectations. Since such expectations need not be incompatible with the attainment of even the highest scientific goals, it is essential that a significant number of the most outstanding scientists work with those who have legitimate applied interests to formulate as nearly balanced a solution as possible without compromising goals.

Guidelines

I am inclined to believe that the guidelines I am about to discuss will turn out to be among the key principles to emerge from a rational resolution of the present dilemma. The first concerns the funding of research. I think funds should be made available with a different spirit in each of several categories.

1. *Research associated with higher education.* Funds directed primarily toward education should be provided in such a way that the staff of the college

or university has a great deal of freedom in determining the legitimate pattern of use. The basic needs for funds in the 4-year colleges or, more generally, in the undergraduate colleges, are quite different from needs at the graduate level. In the first case, the primary focus should be on research which, though not in itself remarkable, will provide experience and inspiration to the embryonic scientist or engineer at the undergraduate level. The scientific theme itself need not be highly innovative.

In contrast, the funds for graduate educational purposes in distinguished graduate schools from which professional scientists and engineers will emerge should be provided according to criteria that emphasize originality, as determined by the best professional standards. To a substantial degree, the emphasis should be upon a level of quality that will advance the frontiers of science and engineering.

2. *Applied research with an explicit mission.* Funds directed to the solution of specific problems related, for example, to specific diseases or to technological goals focused about such matters as transportation, communications, or energy provide the most complex set of issues.

In a sense the most applied side of such problems is the easiest to handle. Most mission-oriented agencies have well-developed procedures involving negotiations between agency administrators and contractors. However, the success of such applied work is often greatly conditioned by the degree to which it draws upon the pool of basic scientific information and involves the cooperation of those who generate that pool. Any broad attack on cancer will not succeed without appropriate participation of those concerned with research in biochemistry, molecular biology, and cell biology—granting that most of those so involved must to a significant degree be sympathetic to those who are mission-minded if not so oriented themselves. Similarly, the utilization of space vehicles for the most imaginative applications will be less than optimum if some of the best scientists and engineers are not involved and are not provided with facilities that match their interests and the needs of the programs. This interface is the one requiring the greatest study at the present time. It calls for the most searching rational discussion between the basic scientists and those who have responsibility for specific applied objectives and wish to optimize the combination of basic and applied work involved in accomplishing such goals. It should also receive special attention with respect to funding by the federal agencies.

I do not believe that such optimization is impossibly difficult to attain, provided that right dialogue is initiated. Moreover, it is vitally important that such discussion be initiated in the very near future if the nation is not to be the loser. To begin with, it would be entirely appropriate to focus on highly limited fields, such as special areas of biomedicine or topics related to the development of energy resources. Such discussions might have been difficult to achieve under federal auspices in the politically charged climate which preceded President Nixon's resignation, but may be possible now, particularly if they could be carried out under private sponsorship.

3. *Special basic research projects.* The public may occasionally express a strong interest in some facet of quite basic science either for general enlightenment or for national prestige. Support of galactic astronomy, high energy physics, and aspects of the space program fall into this category. In many cases public interest may call forth a large national program, possibly one involving expensive equipment which draws on many resources involving governmental, not-for-

profit, and industrial organizations. In such cases the agency sponsoring such a program will find it essential to evolve an advisory system that will be highly conversant with the issues involved, but not entirely self-serving, as it guides the agency in seeking an optimum utilization of resources. One of the nearly ideal examples of such a system was provided by the framework of advisory groups that the National Aeronautics and Space Administration created in the late 1950s and 1960s in support of the Apollo program. In dealing with the more purely scientific programs, such as those related to galactic astronomy or high energy physics, one may rely to a considerable extent on experts from academic life. But this will not always be the case. For example, the advisory framework needed to optimize the scientific uses of the space shuttle or the large scientific telescope should involve a relatively broad segment of the scientific and engineering community.

White House Advisor

An issue that has received a great deal of attention—since the role of the President's Science Advisor and much of the apparatus associated with his office has been transferred to the National Science Foundation—is the extent to which a science office should be retained in the White House and made relatively independent of the Office of Management and Budget. It was my privilege to be an active member of the President's Science Advisory Committee for 7 years, a period ranging from about the middle of the Kennedy administration into the first year of the Nixon administration. This gave me an opportunity to see the operation of the office at first hand over about half of its most active lifetime. During that period PSAC and its panels analyzed a number of major national problems as well as innumerable secondary ones and, on the whole, made excellent use of the resources available to it in its studies. The principal beneficiaries of this work were the executive agencies, which in many instances established guidelines that were highly important to their programs in close cooperation with the Science Advisor and his staff.

Past Weakness

The great weakness of the system lay in the fact that, as time advanced, the rapport between the President and his advisor diminished substantially so that the office became relatively divorced from its main purpose. The reasons for this estrangement are rather complex in detail but reduce to the fact that, whenever the President becomes deeply occupied with issues which do not involve the scientific community in an immediate and direct way, his Science Advisor and his office run the danger of becoming more or less peripheral. This danger was heightened by the fact that PSAC, which contained some 18 members plus past science advisors, tended to retain a philosophy of its own not necessarily geared to that of the President. At times this placed the Science Advisor, who desired to retain the esteem of his peers, in a difficult position.

Le DuBridge recognized the issue and launched a study, carried out under the chairmanship of Patrick Haggerty, which had the goal of proposing a structure for the entire office that might make it serve the more immediate needs of the President more effectively.

The study was completed in 1971, during the period in which Edward David was Science Advisor. It recommended a modification of the structure so as to make it somewhat similar to that of the Council of Economic Advisors—a framework not unlike that proposed more recently by the Killian Committee of the National Academy of Sciences as a part of its appeal to recreate such a structure

within the White House. One principal preoccupation of the permanent staff of the office would be to generate an annual report describing the state of science and its developments and placing particular emphasis upon goals and opportunities.

National Development Council

I should add that more recently Patrick Haggerty has proposed the creation within the executive offices of what he has termed a National Development Council. This would combine in one organization both the present Council of Economic Advisors and the Council of Science and Technology Advisors described above. The director of the National Science Foundation would be on the council as an ex officio member. The new structure would focus its attention on national and international problems and would combine economic, scientific, and technological factors in its planning. Considering the complexity of the problems faced by modern society, such an organization would seem to be the minimum of what one would hope a well-advised President would have at his command. It remains to be seen how rapidly our executive structure will move in such a direction, and whether such a move will indeed take place in one step or in several.

Whether any such modification of the office of Science Advisor would remedy the main difficulties of the old structure remains to be seen since, in the last analysis, the manner in which the President receives advice is to a considerable extent a personal matter. Moreover, the success of the office would be contingent upon its ability to enter into appropriate partnership with the OMB.

Energy Office

It is interesting to note that President Nixon did create an Energy Office in the White House when the petroleum crisis arose last autumn, and that a large scientific contingent was included in the organization. This might suggest that the most appropriate advisory organization within the White House should be much more highly focused on the immediate problems of the President and have two levels of staffing: one that is relatively stable and carries on an annual review of the status of science and technology in the nation in cooperation with the executive agencies and a second component that can be expanded and contracted as special issues wax and wane and is organized as closely as possible to suit the immediate interests of the President.

It would be essential that the science office work in partnership with the OMB in establishing priorities on matters related to science and technology so that its decisions in matters of policy are not without influence at the budgetary level.

Congressional Advisory Structure

I note with approbation the growth of professional advisory organizations within the legislative structure of the Federal Government. The General Accounting Office clearly has a most crucial position. However, the growth of companion organizations, such as the Congressional Research Service and the newly formed Office of Technology Assessment—the latter in its very early stages of development—is significant. With proper organization and communication such in-house bodies can do much to provide the House and Senate with refined information and opinion on a wide variety of matters important to the legislative needs.

It is clear that the success of such units depends upon the adoption of a somewhat conservative approach to issues and problems. The White House inevitably has something of a one-person character. As a result the organizations tied to it

will frequently display a relatively personalized stance. In contrast, any body that is advisory to the legislative structure must retain a high degree of flexibility and will depend for its success upon the development of traditions which generate a widespread sense of wisdom, fairness, and impartiality.

National Academy of Sciences

It is interesting to note that the National Academy of Sciences has begun to be mentioned in numerous congressional bills as something in the nature of a congressional watchdog over the operation of executive agencies. In the past, with a few quite significant exceptions, the Academy has tended to serve as a direct advisor to the executive agencies. The problem of serving both the executive and the legislative in what could in certain cases turn out to be protagonistic roles is not a simple matter and could give rise to considerable tension in the relations between the Academy and the Government. The resolution of this issue may require that the Academy, as a quasi-private organization, lay down relatively stringent formal rules concerning the circumstances under which it can be expected to furnish advisory services.

DISCUSSION

There appears to be a trend in this country, as advancements are made in the natural sciences, to take the scientists out of the laboratory and put them in management positions. Do you think this is an unwarranted drain on the scientific talent in this country?

Dr. Seitz: I think there's a kind of inevitableness to that. It probably is tied very much to the age of the scientist involved. Creative science, in general, is a young man's game; not that the older generation doesn't have its place. I think Vannevar Bush once said that the job of the older scientist is to sit in the shade and encourage the young, and there's a good deal to that. Granted that resources are limited and that we are now inevitably in the period where we have to select what the right and the wrong things to do are, I think it's quite appropriate to have a significant amount of the talent, particularly that of the mature component side of the community, devoted to management.

In view of your view that the United States is deteriorating in the areas of science and technology, what is your opinion of the rate of technological applications in the United States versus other countries in the period ahead?

Dr. Seitz: As far as creativity at the frontier is concerned, the problem that remains to be resolved is the one I emphasized—the joining of hands, the removal of polarization in the interplay between the pure and the applied. I think there's room for compromise. As for the competition with other countries, we have to recognize that the Europeans, who are now putting a great deal of their resources into science, are fully our equals. As a matter of fact, when I was a graduate student in the 1930s, one looked to Europe for most of the significant advances. It's not surprising, now that the Europeans are back on their feet, that they are redeveloping their old traditions. You see that in all countries. Taken as a whole, I think that's healthy, as long as the channels of communication remain open. Many of the problems —take those, for example, of space science—are ones in which the costs are so great that it's only fair to have the Europeans play their role.

Our situation vis-a-vis the Soviets is, of course, a somewhat different matter. I had the privilege recently of reading a document that was a translation not of a classified but of a somewhat privileged Soviet analysis of their own problems

connected with their expenditures for science and technology. The issues which appeared in it were a complete duplicate of our own. I think they're entering into a phase where they realize that they cannot double the expenditures for pure and applied science every 5 years without questioning quite carefully the way in which the money is spent. I think somehow that will come into balance. What I would address myself to, again, is the establishment of something in the nature of the peace at home. I think if we can achieve that, we needn't fear that we will fall too far behind.

As you know, the Congress established the Office of Technology Assessment. Some have expressed the view that GAO's role has been and still is primarily to examine past and current Government operations, whereas OTA should be primarily concerned with the future impact of existing policies and proposed legislation. In your opinion, should they engage in similar studies or, in any case, to what extent should GAO and OTA cooperate?

Dr. Seitz: I think it is absolutely indispensable to have a strong in-house concern about the future as well as the present and past. I don't believe you can make decisions concerning current budgets unless you have a clear idea of what their impact on the future would be. I would think GAO would want to maintain and have its own strength there. As far as the Office of Technology Assessment is concerned—again, I'm speaking quite personally—it is quite new; it doesn't have the 50-plus-year tradition that GAO has to rely on. And for that reason, while extending cooperation with it, I would think you'd want to build on the strong base you currently have and on enlarging upon that base. I don't think a matter of competition is involved here. The main problem is to cooperate in the development of areas of interest and competence.

Material, energy, and food areas are all shortage areas now, unlike a few years ago when there was a surplus situation in all three. To what extent should the Federal Government come in now on a research and development basis and try to solve problems in these three critical areas and to what extent should we let the free market control them?

Dr. Seitz: Here again, the main issue is one of achieving a compromise. It's clear that any attempt at complete centralization of, say, farm planning would be a mistake. No country has really been successful in such planning. I rather imagine that the same thing would be true of energy planning, although we don't have that much experience to go on. On the other hand, the Federal Government can play an enormously important role in bringing about what one might call a concert of activity among the private contributors. In this sense I don't believe the Federal Government can stay out of the issue at all. Our country needs someone to call the tune. On the other hand, I believe private initiative should be given all the play it can sensibly use. And, as we know from our own high productivity in the farming area, private initiative is crucial. The Soviet Union has tried to depend mainly upon central planning in farming, and has not been very successful.

What do you see as the future role of science advisors in foreign policy affairs, intelligence affairs, and other related areas?

Dr. Seitz: This is a very difficult matter to discuss in any broad and general sense. Again speaking personally, I think we need a significant national intelligence organization. I believe it's tied to the matter of national survival as long as other nations, and other groups, are

carrying on such activities. Granting this, it will be essential to have some scientists involved in the process—not so much to thrash out the ethical issues because such issues concern everyone in our society, but to provide the right mix of professional involvement. There are, for example, technical issues, such as those relating to the effectiveness of satellites in surveillance, that only scientists and engineers can deal with adequately. I know I haven't come to grips with the ethical issues you have raised but I think, again, those issues belong to the whole Nation, not exclusively to any particular group.

Much of our basic research is defense-oriented, and research and development guarantees new weapons. But how does our desire to reduce defense spending and control arms development affect spending for research and development in both the applied and pure science areas?

Dr. Seitz: A study of the expenditures for defense and defense research show that, since 1945, they have become a decreasing component of our gross national budget. That is, we have spent proportionately less in each decade; I forget what the figure is, but I think the overall expenditure is now about 7 percent of the GNP, taking the broadest possible interpretation of such expenditures. I would say that the greatest limitation we face will relate to arms procurement rather than to research. The cost of the most forward salient of military research is not great; it's at the other end, in production and procurement, where the real expenses lie. It is there that we will feel the greatest change in military budgets.

What is being done to get together a world scientific organization to solve the world's scientific problems?

Dr. Seitz: The United Nations is the body that attempts to centralize the issue both through its own work and by coordinating that of others, and, to the extent that it is successful, one has a broad assessment of the picture. I might expand on this by saying a few words related to a special aspect of the work of the U.N. I recently participated in the work of a newly created committee of the United Nations, COSTAD, The Committee on Science and Technology for Development. It had its first meeting in March of 1973 in New York. I was asked if I would serve as the head of the U.S. delegation.

As a national group, we came prepared with a proposal for the agenda that would recommend the formation of working groups to go into each of the most important fields. What actually happened is that the so-called group of 77 nations which in 1973 regarded themselves as the core of the developing group took over the meeting, constituting a substantial majority. We never had a chance to present our agenda. The theme song of the 77 was the proposition that we should promise to dedicate a certain fraction of our gross national product in the form of cash to their immediate needs. For 3 weeks that theme provided something in the nature of a litany for the meeting. The 77 were so effective in controlling the situation that at times they would put the rest of us out of the hall—the Russians going with us—while they held a caucus on the attitude they might take toward some point that had been raised by their own group. As far as I was concerned the 1973 meeting ended a dismal failure.

A second meeting was held in March of 1974. We tried to prevent it because it seemed pointless but we were unsuccessful. Because of our prior experience, we did not come to the 1974 meeting with an agenda, taking the viewpoint: "Let's see what happens." In the meantime, of course, oil prices had risen by a

factor of three. What the 77 nations found is that they weren't really unified any longer. Some of the countries are now going to be very rich because of the increase in petroleum prices; others are going to be very poor, not only because they lack petroleum but because they're going to have to pay three times as much for it. Thus much of the unity of the 77 was shattered. In the first 2 days, *they* brought up the agenda item that *we* had proposed a year earlier. As a matter of fact, we never quite were able to catch up with them at that meeting: they wanted working groups to start almost at once on all the things we had proposed, and we, I am embarrassed to say, were so poorly prepared because of our experience a year earlier that we had to recommend that we spend the next 2 years thinking out just how these things would be done and then have another meeting 2 years from now, at which time they would be implemented. This will give you some conception of the extent to which we can work systematically, in a completely international way. That doesn't mean that there won't be a good deal of bilateral or multilateral work in specialized areas that will be quite effective.

Do you have any reactions to the Organization for Economic Cooperation and Development?

Dr. Seitz: I think the OECD has done a fine job within its limited sphere of activities—mainly concerned with comparative studies. It obviously isn't all-inclusive since its most active members are developed countries which need to learn to cooperate in helping the developing countries.

Would you comment on the outlook for the newly authorized Energy Office, especially what it should do in relation to nuclear research and its relation to basic research, such as the National Accelleration Laboratory. Will it be a means of really focusing new efforts on other means of energy?

Dr. Seitz: I have no doubt that we need a strong, centralizing office to develop uniform understanding about the energy situation. The greatest problem that we face relates to our attitude toward environmental matters. We have as much coal as the Near Eastern nations have oil and it is available. In fact we depended on coal as our principal energy source for 200 years. There's no reason in the world why we shouldn't turn to it for succor at this time.

What is most needed, however, is the achievement of some kind of understanding that mitigates the form of polarization in which the environmentalists have played such a strong role. The same thing can be said in relation to the use of nuclear energy.

I happen to believe that it is possible to burn coal without destroying the environment. Similarly, I believe that we can develop reasonably safe nuclear reactors granting that there are problems of waste disposal and management.

Before we can achieve success, however, the Energy Office must gain public support in coming to terms with the environmental groups that are holding up progress. The situation in the State of New York, particularly as it relates to New York City, is perhaps most indicative. For some 12 years, Consolidated Edison has been thwarted in every move it has made to add components to its network within economical range of the city. For example an attempt to put up a power plant, near Saratoga, where there was ample space and no great conventional environmental issue, ran into difficulty because environmentalists claimed that it would be a national sacrilege to have a power plant within view of the Saratoga battle site. They were

effective in preventing the unit. Somehow I think we've got to straighten out such matters.

As far as basic research is concerned, the National Accelerator Laboratory could certainly be taken over with ease by the National Science Foundation. That Laboratory is as closely parallel to the central interests of the National Science Foundation as anything else it handles. It's true it would increase the budget of the agency significantly and hence make the National Science Foundation somewhat more conspicuous on the Hill, but, in principle, there's no problem.

There are a decreasing number of people now going into basic research. To what extent do you think Federal policy has had a major effect, and is this related to the phasing out of research training grants? Do you think switching to subsidized loans will take up the slack?

Dr. Seitz: During the 1960s, many young people, who were of the type that previously had been very enthusiastic about science, lost such interest and decided to go into other things. In some cases, the change was great—they would turn to law or another area not closely related to science. Some of the interest, however, turned toward such matters as medicine. An institution such as mine that's mainly devoted to research in the biomedical fields noted that some of the best applicants that came within our horizon were not interested in biology or biochemistry as such but wanted to become M.D.s. In order to capture a significant component of those students—some of the most brilliant and most dedicated—we arranged a joint M.D.-Ph.D. program with Cornell University Medical School. Within the new program, the students spend half of their time, over a 6-year period, at Cornell, which is across the street from us, and half their time on our campus doing basic research. They will end up with both a Ph.D. and M.D. It is my opinion that, in one way or another, many of the students who are going to be the future leaders in science will gravitate toward mission-oriented activities. Many interested in the physical sciences will go into electrical engineering or geophysics instead of physics or astronomy.

I'm not as deeply concerned about the maintenance of training grants as some other scientists are, but would focus primary attention on money for science as a whole. In the strictly formal sense training grants were available almost exclusively in the life sciences. One does not have training grants in the physical sciences. The graduate students in the physical sciences and in engineering are usually supported either by teaching assistantships or by fellowships, or are put on contracts or grants with one of the agencies and play out their role as research assistants. In a similar way, when they attain their advanced degrees they become postdoctoral fellows on agency grants tied to specific research projects. It is true that the training grant program in the life sciences became a favorite medium for advancement, especially in the postdoctoral period, but I would think that if they are never reestablished on a large scale, one could work around the problem provided there's enough money. Of course, the question of how much money one should have for young scientists is going to be tied to the overall problem of how large we want the scientific establishment to be. As I said earlier, we probably will have fewer large laboratory complexes in the future because of using costs.

As budgets get tighter, is it inevitable that we devote substantial effort and thought to the problem of budget planning in order to stay competitive?

Dr. Seitz: The answer is clearly yes. We are long past the point where we can

give every member of the scientific or engineering community, including the biomedical community, exactly what he or she wants. We're going to have to pick and choose; we're going to have to establish a system of priorities.

Let me be more explicit. I think that up to the mid-1960s we could support most of the good people as they wanted; we're now long past that period. The main plea I would make, and it lies at the core of my formal presentation, is that we must work out this compromise by discussion between those who want to put the money almost exclusively into areas of immediate application and those who tend to say, "Just put the money into basic research and everything will work out automatically." I think the extreme views are both wrong; what we need is a compromise. We must convince the people who are interested in applications that they must support some of the basic research in order to have the fuel for their applied programs, and we must get the present generation of basic scientists to recognize that those who have mission-oriented goals are not enemies but in a sense their patrons. I think that is the concert that must be achieved, and *all* within the framework of material planning.

Safety of Nuclear Power Plants

The letter report of October 16, 1974 on safety of nuclear power plants was reviewed and highly concurred with by the Atlantic County Citizens Council on Environment. Action since taken by the U.S. Atomic Energy Commission on major shortcomings of the nuclear power plant safety program is indicative of the good results of this effort by your organization. Our council commends such objective and perceptive reporting on a critical program which threatens significant adverse impact to the public if adequate analysis, planning, and subsequent action is not properly pursued by all concerned.

John Williamson, President
Atlantic County (N.J.) Citizen Council on Environment, to Henry Eschwege, Director, Resources and Economic Development Division
December 6, 1974

Eleanor Bernert Sheldon
President, Social Science
Research Council

Dr. Eleanor Bernert Sheldon has had an outstanding career as a researcher, educator, and author, and as an administrator in her position as President of the Social Science Research Council, an organization devoted to the advancement of research in all areas of the social sciences.

Since receiving her Ph.D. degree in sociology from the University of Chicago in 1949, Dr. Sheldon has served in a variety of challenging positions. She has been a Visiting Professor and Lecturer in sociology at Columbia University as well as the University of California. She has worked as a social scientist with the United Nations, the U.S. Department of Agriculture, and earlier with the Social Science Research Council. From 1961 to 1972, Dr. Sheldon was a member of the executive staff of the Russell Sage Foundation. Dr. Sheldon also serves on numerous Government advisory committees, including the Advisory Panel on Social Indicators of the Office of Management and Budget, the Advisory Committee for Science Education of the National Science Foundation, and the Assembly of Behavioral and Social Sciences of the National Research Council. She is a member of the Board of Directors of The RAND Corporation, the U.N. Research Institute for Social Development, and the Equitable Life Assurance Society of the United States, among others.

Dr. Sheldon is connected with such professional associations as the American Sociological Association (Fellow), the Population Association of America, the American Statistical Association (Fellow), the Sociological Research Association (President, 1971–72), and the Council on Foreign Relations.

She has authored or edited books, monographs, and articles in the fields of demography, children's studies, medical sociology, family economic behavior, and social indicators. Her most recent book, Family Economic Behavior, *of which she was editor, was published by J. B. Lippincott Company in 1973.*

During this lecture series we are hearing the views of recognized leaders from various fields of endeavor on subjects about which they are especially knowledgeable and which are relevant to the mission and operations of the General Accounting Office. Today's speaker will be discussing a challenge which relates directly to our work as well as to her own.

Our guest is Dr. Eleanor Bernert Sheldon, President of the Social Science Research Council and a distinguished social scientist. Her presentation is entitled, "Social Experimentation: A Challenge for the Seventies."

How does the topic of social experimentation relate to GAO's efforts? Since our organization is becoming increasingly involved in evaluating Federal social programs, it's essential that we have full knowledge of problems and developments in this area as well as an understanding of the objectives of social experimentation. What areas of the social sciences should federally funded programs emphasize? What guidelines can be used to determine the degree of success of Federal social programs?

There are few people who are more qualified to discuss these and related questions than our speaker today. Dr. Sheldon has been President of the Social Science Research Council since 1972. For those of you who are not familiar with the Council, it is a nonprofit organization which emphasizes the study, planning, and evaluation of research that offers promise of increasing knowledge of the social sciences or of increasing its usefulness to society.

Dr. Sheldon brought to her present position a background of outstanding research accomplishments, creative imagination, and administrative skill. Prior to joining the Council, Dr. Sheldon held a variety of positions in the academic community, with the Federal Government, and with research organizations. She served on numerous advisory councils and has addressed herself to many areas of concern in the social sciences through her books and articles.

—Comptroller General

Social Experimentation: A Challenge for the Seventies

Dr. Eleanor Bernert Sheldon

The 1970s will clearly be a decade in which planning, control, and even explicit priority setting will play a vital role in that mosaic of policy decisions concerning the allocation of resources. In virtually all areas of society—welfare, education, housing, health and even science—increasing demands are being made on economic resources. Furthermore, it appears that all of these sectors of society are becoming increasingly dependent upon research—evaluation research—for their claims upon scarce resources.

The decade of the sixties was one of rapid-paced social change, marked by the proliferation of large-scale social action programs, i.e., planned social intervention, designed to ameliorate or solve existing social problems. We found huge expenditures encompassing large and small organizations going into attempted solutions at both national and local levels. Perhaps nothing is more important to the success of social action programs than that we know whether or not they work and what effects they have. It almost goes, or should go, without saying that if we are to rationally, intelligently, and sensibly modify or terminate programs which are not achieving their objectives or continue and expand those that are, we must have some evidence of how effective and efficient these programs are.

Increased Demand for Evaluation Research

During the sixties interest mounted for employing social research techniques to determine the effects of social action programs and the allocation of economic and personnel resources to them. This increased demand for evaluation research can largely be explained by four major factors.

First, a pragmatic impetus, the increased competition for resources, produced an increased pressure upon public agencies for greater accountability. Requests for allocation of support of a social action program must compete with other requests—new and innovative programs must justify their emphasis and orientation and/or old established programs must demonstrate their continued efficiency and effectiveness. Evaluation research thus, as the "handmaiden to social policy" (Weiss, 1970), becomes an instrument, a tool, by which decisionmakers determine the "winners" in the rapidly expanding contest for public support.

A second factor encouraging the development of evaluation research is that it represents the implementation of one of the most appealing ideas of social science, i.e., the application of science to the solution of social problems. During the sixties, more than ever before, the demand for pursuing relevant policy-oriented

research mounted rapidly, both because of the cry for a useful application of our knowledge from within the social science professions and from the external forces of an enlightened and concerned public at large. Social scientists were called upon to assume a more responsible position.

A third factor influential in stimulating interest in evaluation research is that, despite the rapid rise and expansion of social action programs which the last decade has witnessed, there appears to be no accompanying rapid decline in the social problems these programs were designed to alleviate. The expectations of planned social intervention have hardly been met. In part, this may be due to the fact that systematic, objective evaluation studies had not previously been undertaken and thus decisions to terminate, modify, or continue programs were made largely without empirical justification. In the wake of this liability, the demand for evaluative research becomes an expected regular accompaniment to any rational social action program. Evaluation research is asked not only to provide valid and reliable evidence of effect, but also to demonstrate that the noted effects (changes) can be directly attributed to the specific social action program being evaluated.

A fourth explanation for the upsurge of interest in evaluation research may be related to a more widespread adoption of Campbell's (1971) notion of evaluation as "an experiment in social reform." Campbell points out that evaluation research not only can but should be viewed as a reform experiment. He calls for a "general moratorium on *ad hominum* evaluation research," that is, "* * * research designed to evaluate specific administrators rather than alternative policies." (1971:235) He advocates the adoption of an experimental stance for evaluators whereby their major task is the continuous examination of alternative solutions to the social problem with which they are concerned. By adopting the perspective that alternative solutions are the basis of evaluation research, rather than the assessment of a specific program implementation, we can reduce one of the most powerful threats to good evaluation studies, i.e., the fear of the consequences of a negative evaluation.

Additionally, viewing evaluation research as an experiment allows one to more closely approximate an applied functional analysis, that is, not only does one assess whether the specific program has had an impact, but also a major concern can be the elaboration of both functional and dysfunctional consequences (including unanticipated consequences).

The Challenge of the Seventies

The evaluations of the 1960s—non-experimental in the Campbell sense—have had a major impact on the programs of the seventies and show the consequences of negative evaluations. The President, in his 1974 budget message to the Congress, invokes their immediate application. "By abandoning programs that have failed, we do not close our eyes to problems that exist; we shift resources to more productive uses." He went on:

> Increased emphasis will also be placed on program performance. Programs will be evaluated to identify those that must be redirected, reduced or eliminated because they do not justify the taxes required to pay them. Federal programs must meet their objectives and costs must be related to achievements.

My remarks here today might be summed up by several listeners as: "Easier said than done." Others may hear a more optimistic view that says:

> We, that is, social scientists, are fully aware of the complexities of policy decision, of program implementation, of

the weaknesses of our research conceptualizations and tools and particularly of our models that attribute change (or lack of it) to given programs of social intervention. We are also aware of the potential dangers in the premature applications of our findings. The state-of-the-art is improving, though slowly—and we recognize and accept our responsibilities for time-appropriate research. On the one hand we ask patience and on the other we strongly recommend 'use with caution'.

The shaping of social policy involves a combination of value judgments and information in a variable mix. Some policy debates have a heavy loading of value judgments, for they turn on the question of whether it is considered socially valuable to achieve or sustain a particular state of affairs in society. Other debates have a heavier loading on the information side, for they are concerned with the relative effectiveness of alternative measures for achieving an effect on whose desirability there seems to be substantial consensus: for example, would drug addiction be lessened by more stiffly enforced laws to control drug traffic; or by educational and therapeutic programs; or by other measures? Whatever the proportion may be on any given question, the making of public policy requires both some consensus on the value goals to be sought and as much knowledge as possible about the feasibility, the cost and effort, and the effectiveness of various means of attaining these goals.

Obtaining knowledge about the probable effectiveness of various means for attaining desired social goals is what evaluation research is about. It is not an easy task, yet it is a crucial one because, increasingly, the nation is attempting to solve its domestic problems through planned programs of social intervention. These attempts are usually handicapped by the lack of two kinds of knowledge: on the one hand, there is insufficient information of a base line character about the extent of a problem, the kinds of people affected by it, and its indirect consequences or associated phenomena. On the other, we suffer from a meager understanding of the complexity of relationships among social forces. For both of these reasons, it is always difficult to forecast accurately what will be the effects (both direct and incidental) of an attempt to solve the problem—that is, the effects of a program of deliberate social intervention. Too little is known factually about the problem to begin with; and good theoretical models of the social processes involved in intervention are lacking.

Experimentation as a Method for Planning and Evaluating Social Intervention

My remarks on these problems today are drawn almost exclusively from a forthcoming volume, prepared under the auspices of the SSRC Committee on Experimentation as a Method for Planning and Evaluating Social Intervention (*Social Experimentation as a Method for Planning and Evaluating Social Interventions,* eds., Henry W. Riecken and Robert F. Boruch, 1974, forthcoming). First, my point of departure: it is essential to enlarge empirical experience with intervention on a *small scale* and *in such a way* as to learn as much as possible about the social problem and the various possibilities of intervening. Accordingly, I focus attention on *one* method for getting a dependable knowledge base for *planning* and *introducing* social programs—namely, social experimentation.

The volume referred to takes the position that *systematic* experimental trials of proposed social programs (interventions into normal social processes) have certain important advantages over other ways to learn what programs (or pro-

gram elements) are effective under what circumstances and at what cost. By *experiment* is meant that one or more *treatments* (programs) are administered to some set of persons (or other units) *drawn at random* from a specified population; and that observations (or *measurements*) are made to learn how (or how much) some relevant aspect of their behavior following treatment differed from like behavior on the part of an untreated or control group also drawn at random from the same population.

We are inclined to emphasize the role of experimentally gathered information in the shaping of social policy because such information is most helpful in learning the causal relationships among program elements and outcomes. If an effect can be demonstrated in a group of units (persons, places, or institutions) chosen at random and subjected to a specified treatment, while a similar group that is not treated does not show the effect, one can be reasonably confident that the treatment produced the effect. Such confidence cannot so readily be reposed in nonexperimental evidence, even though sophisticated methods of analysis can be used to reduce the ambiguity of causal inference. The superiority of the experimental method lies in the fact that in a true experiment the differences between a treated (experimental) group and an untreated (control) group can be attributed entirely to the effect of the treatment plus an accidental (random) error component which can be accurately calculated and which will be even-handedly distributed across the control and the experimental groups alike. Furthermore, all the other factors which augment or suppress the outcome variable occur even-handedly in both the experimental and the control groups.

There are, of course, ways of estimating the effect of some social event or constellation of circumstances without doing an experiment. For example, one might analyze historical records and attempt to find statistical relationships between, say, changes in children's height and weight on the one hand and the price of available sources of protein—if one sought to examine the effects of protein nutrition on physical growth. It would be unusual to find, in such data, measures of all of the variables (parental stature, socioeconomic status, dietary habits, etc.) that might affect physical growth and might be correlated in unknown fashion with the gross indices available through records. Thus a number of uncontrolled (and uncontrollable) factors which might also be affecting height and weight would not appear in the analysis and these uncontrolled sources of variance would lessen confidence in the interpretation of the correlations obtained. Alternatively, one might design a prospective study to follow a cohort of children for a period of years in order to observe changes in height and weight as well as measuring their dietary intake (and the price of protein). Other variables hypothesized to be related to physical development, such as those mentioned above, could also be measured. While such a design would be a vast improvement over the study of historical records, and while the best methods of multivariate statistical analysis might be applied to the data, the results would still be correlational, indicating the presence and the strength of a relationship but not establishing the causal direction. Does a relationship between a child's weight and the number of visits to a physician indicate that frequent medical attention improves children's nutrition? Or that well-nourished children are found in families that can afford medical care for even minor illness?

When randomization or a true experiment cannot be achieved, or when a control group is not feasible, a variety of quasi-experimental designs may be sub-

stituted—with greater ambiguity in the outcome, but still considerably more dependable information than is ordinarily obtained from analysis of nonexperimental data.

We encourage policy strategists as well as program managers to adopt an experimental attitude toward their work, and to employ experimental designs or experiment-like approaches. Some available quasi-experimental design can be found which is applicable to nearly every social setting and nearly every kind of social intervention with which a policymaker may be concerned. No quasi-experimental design yields results that are so convincing as those from a true, randomized controlled experiment. Each quasi-experimental design has specific weaknesses (as well as strengths), which need to be carefully considered before the quasi-experiment is begun as well as in the interpretation of results, but all of these designs yield information that is superior in at least some respect to wholly nonexperimental, observational studies.

Advantages of Experimentation

What then are the advantages of experimentation? Its primary advantage over simple observational or retrospective studies is, as we have already emphasized, that an experiment generally allows us to make inferences of superior dependability about cause and effect. In the case of almost any social phenomenon, there are likely to be several plausible explanations competing for acceptance. A systematic experiment virtually rules out the possibility of "causal displacement," or the error of attributing to treatment an effect that is produced by some uncontrolled variable such as a characteristic of the persons treated. True experimental design eliminates the possibility of causal displacement by assuring that the ability, motivation, or suitability of participants is approximately even-handedly distributed between the treated and untreated groups (with a specifiable amount of chance error).

Secondly, an experimental design has the advantage of allowing a comparison to be made between the effectiveness of two perhaps equally plausible kinds of treatment; i.e., two programs that are in competition for acceptance and with a *prima facie* equality of claim to effectiveness. An *experimental* comparison of two such programs is to be preferred to merely a casual observation of each or both in operation.

Experimentation usually has some serendipitous advantages too. Designing an experiment forces one to confront certain problems that might otherwise be ignored or left in ambiguity. It forces one to define clearly what the objectives of the treatment are, what effects are expected, and what measures are to be made of effects. Further, one is forced by design requirements to spell out rather explicitly what the treatment will consist of—i.e., what particular actions and operations will be carried out. In addition, when the treatment is actually carried out for experimental purposes, program operators will learn much about how to implement their purposes and what some of the obstacles and problems are. Many of these will foreshadow the problems of establishing a nationwide program and will reveal facets and consequences that program designers did not anticipate or intend, including both positive and negative side effects. The experimental operation of an intervention can also increase public understanding of a particular social policy and help to focus discussion on real rather than imaginary issues. It may also have the effect of removing some issues from the purely political arena and placing them in the more

neutral zone of science. To the extent that arguments over what would be the effects of a proposed intervention can be settled by experimentation, the true experiment can be treated as a labor-saving device which allows statesmen and the concerned public to spend their time more usefully making value judgments.

Finally, the experimental approach to understanding social phenomena brings the assurance that any deliberate intervention brings: if one can intentionally and successfully produce (or prevent) a phenomenon, he has a surer sort of knowledge about its causation than can be obtained in any other way.

Drawbacks and Difficulties of Experimentation

Experimentation also has its drawbacks and difficulties which lead us to refrain from a flat prescription to use this approach for every situation. Primary among these are the problems of cost, complexity, and delay in getting an answer. Although the cost of social experiments may be small by comparison with such applied experiments as AEC underground tests or NASA moon shots, nevertheless they are more expensive than other forms of social research. An experiment being carried out in New Jersey to test the effects of a "negative income tax" form of welfare will cost a total of $5 million over a 4-year period. An experiment in rural Guatemala to examine the relationship between nutrition and mental development will average about $0.5 million per year over a 7-year period. A proposed urban study of the same topic was estimated at about the same rate of expenditure. Expensive as they may be, they are often the best way to obtain dependable knowledge and, hence, are a bargain.

Furthermore, some experiments are complex in their demands for manpower, time, and managerial skill, and for ancillary services that the social researcher does not ordinarily require.

Social research usually provides for the development of measuring instruments and their application, either through interview or examination; for logistic support (usually computation facilities) in the analysis of the data; and for some period of professional time. In addition to these requirements, experiments must provide the treatment offered to the experimental (and sometimes to the control) subjects. Treatments may require a large nonresearch staff, and also some skills and materials quite different from those with which the researcher is accustomed to work. In the rural Guatemala experiment, for example, it proved necessary to offer medical care as well as food supplementation to the experimental population in order to keep the experiment going. Both the supplement and the medical care required additional and different personnel, vehicles, buildings, material, and above all managerial supervision. In some sense, running an experiment of this sort is akin to managing a live-in educational or custodial institution which has the characteristics of a hotel, a hospital, and a factory. In the case of the New Jersey experiment, the management of it has many of the characteristics of a full-scale welfare plan. In addition, there are larger and more extensive problems of data management and data processing than are encountered in much social research.

A second drawback for many experimental treatments is the time delay involved in obtaining the information necessary for planning or assessment of the effectiveness of the program. It may require many months to design the experiment, pretest its procedures, assemble the staff, and put it into operation. It must then run for a sufficiently long time to allow the treatment to produce

its presumed effects. Finally, there is bound to be a period of analysis and interpretation of results which will extend the delay by still more months. The New Jersey experiment was planned in 1967 and final results may be available in 1974. Shorter experiments have been conducted in different areas, of course. For example, a New York experiment to test the effect of releasing a random sample of offenders without bond took less than 3 years. However, time delays of such magnitudes suggest that experiments should be undertaken only after strategic consideration has been given to the need for results and the likely costs of either taking no action in the interim or taking actions which are stop-gap and of uncertain efficiency.

Finally, experiments pose particular ethical problems which may be present in all social research but become exacerbated in experiments. These will only be touched upon here. They include questions of fairness in selecting and assigning participants to experimental and control treatments; in protecting the anonymity and confidentiality of subjects' records, and, perhaps most important, in how to terminate the experiment without simply discarding the subjects and casting them back into the condition prior to their having been granted a "temporary boon."

DISCUSSION

Do you feel that policy design and program evaluations are the primary reason for the development of social indicators and statistical indices?

Dr. Sheldon: I would suspect that it's almost the other way around. The initiation of the effort to develop social indicators emerged from many sources. In the academic community those sources emphasize the use of social indicators in an attempt to understand social change. In the public policy community there was a searching for easy ways to evaluate programs and, among the searches, some came on the notion of social indicators for use as an evaluative tool. However, that was a notion that encouraged much debate both within the academic community, within the public policy community, and between the two communities. I think it is reasonably agreed upon now that time series aggregative statistical data, no matter how sophisticated the analysis is, is not a good evaluative tool. So I do think there is a relationship between the two efforts but I do think it works the other way around.

Why didn't we grasp the fact that the work done in the sixties was an experiment and can't we use the data collected in the sixties as experimental data? Did we gain any lessons from that work?

Dr. Sheldon: I did not mean to imply that we have no lessons to be gained from the sixties. We have both positive and negative lessons to be gained from the sixties. You're asking primarily why we cannot use the data collected in the sixties and keep them as experimental data, is that not correct? We can't use the data collected in the sixties as experimental data because largely there is not planned variation in the treatments applied. There was not comparability in the variables on which we made observations and it was pretty much of a hodgepodge. Now a great deal can be made out of a hodgepodge through some sophisticated statistical analyses, I'm sure, but it still is not in lieu of decent experiment or quasi-experimental design. Our problem is attribution of changes, we call it; namely, can we attribute to an observed change a program designed to bring about that change. This is the crucial question that haunts all of us in evaluation research, and only through controlled design, be they fully controlled or quasi-controlled designs, can we begin to answer that

Dr. Eleanor Bernert Sheldon, President, Social Science Research Council, lecturer at GAO on October 30, 1973, with Comptroller General Elmer B. Staats; on left, Gregory J. Ahart, Director, Manpower and Welfare Division; on right, A. T. Samuelson, Assistant Comptroller General.

question with any degree of conviction. And redoing the analysis of the 1960 material will in no way help us along those lines. We may get higher correlation by redoing some and the like, but I'm not at all sure that we would be any more convinced about our problems of attribution of change.

Should not social program evaluation be considered as involving two skill areas: one, the assessment of program achievements; and two, the expression and selection of objectives attainable with the resources planned or expected for the program?

Dr. Sheldon: I'm not quite sure that I understand these two channels you have in mind. Program evaluation, you are asking, could be viewed as a two-pronged enterprise, the first of which is to enunciate the objectives of the program and maybe the implementation of the program, and the second of which is to assess the degree to which those objectives were obtained. I think that's a simplified version of it. That makes it a very easy enterprise, but it's not that easy. That's why I say, "Easier said than done." And let me do bring out one of the important facets. I do think that, rather than examining one program designed for one objective, it is far better to design a set of programs aimed at related objectives so that we will have comparative programs as well as comparative population groups.

The Federal Government has been under tremendous criticism for using experimental control groups in their studies. Would you comment on the ethical problem involved in denying treatment to a control group as well as on the topic of informed consent?

Dr. Sheldon: Yes, these are very important, significant, and tricky issues. First, on denying treatment to a control group—let's take the health insurance or the welfare allotments and the negative

income tax experiment. I do think that in denying treatment to a controlled group, there are two things that can be said. Point number one: if you design your program so that there are different levels of intensity of treatments given to a wide range of groups, then you, in effect, overcome the no treatment syndrome. Then you can come back and say, "Yes, but we know that that group requires not only protein but they also require medical assistance, and the design is for one and not the other." I would say to you that, if you already know that, we don't need a program to test it and I would question whether or not you already know that. I do think that experiments can be designed so that different forms and different intensities of treatment can be given also to so-called control groups. There is the notion nonetheless that the public rightfully has as being used as guinea pigs. I don't know how to get around that.

Now the question of informed consent, I think, is much trickier. Sometimes when you run social experiments it might be conceivable to sidestep the real objectives of that program. I do not see that in the health insurance program, the educational voucher one, the negative income tax or on the nutrition one and things of that sort. And there has been informed consent with all of these subjects. They know the aims of the program. Those aims are in no way ambiguous. They also are informed of the timing of the program, the length of time during which they will get the treatment, and the like. Then the real issue is whether in that kind of semi-hothouse situation we are getting measures which would have occurred had these people not known they were in an experiment. I don't know how to handle that one. You can always pick up comparison groups at some distance from the experimental locale. You are already engaged in a very messy quasi-experimental design and you must be fully conscious of that messiness. But there's a difference between examining it on an ethical level and examining it on an analytical interpretive level.

Considering the time requirements of social experimentation, how do we answer the call of the people for today rather than tomorrow? Is there an equitable way to respond to immediate needs as well as prepare for the future?

Dr. Sheldon: I fully agree with you that there are some conditions that cannot await the answers of research. On the other hand, I would like to suggest that, even though you respond to those demands and needs in any way you know how, there's absolutely no reason why simultaneously some smaller scaled social experiments cannot be entertained and well conducted for the future modification of that initial plan or for a complete change of direction in that initial plan. But certainly the humanitarian response would precede the priority structure here. I would like to emphasize that there's no reason why the two cannot go on at the same time.

Is it possible to design programs of prevention or amelioration for one segment of society or aimed at one social problem or related set of social problems without placing those social problems in those programs within a larger context that in effect influence it and are influenced by it?

Dr. Sheldon: Of course not. There are several ways that we have to proceed on this front. First of all, the social scientists frankly admit that we do not have a general theory of a social system, let alone a general theory of social change within that system. The best we are able to do, even currently, is work on subsectors of the total system, first with respect to trying to understand how it hangs together and then hopefully with respect to trying to understand how it

changes within the subsystem and then how it is affected by, and how it affects, other subsystems.

This is a millennium of social science theoretical development and research and I doubt that much precipitous progress is going to be made in my lifetime and maybe not even in yours. On the other hand, one of the finest ways to get at the cause of relationships in social phenomena is to mount experiments that can actually cross sectors. There is no reason why any set of experiments must be confined to one social problem. It makes it extremely complicated and the like, or they can become accumulative over the course of the years. It's a hard and arduous job. I don't think that any success is on the immediate horizon, but nonetheless that cannot prevent us from doing the job in the best way that we know how to do now, satisfying two purposes—one with respect to the current social problem and the other with respect to building a body of basic knowledge about society and how it changes. These two things do go on simultaneously.

Would you comment on the need of designing an information system about social experimentation? If we had an information system about where we are now, wouldn't it be easier to design an information system about social experimentation?

Dr. Sheldon: Yes, I think that you are absolutely right, but I'm not sure one must precede the other, although it would be preferable. We haven't been quick enough, however. I do think that it is absolutely necessary for us to develop what we call this baseline information and that is in establishing a system of information which does describe where we are and what relates to what. Even that, however, is a long-term development. You can very well develop an information system and set of data files on experimental programs irrespective of those baseline data, though it is probably true that the very program conception and implementation itself would have been better had the baseline data been present. But that again is where we are in this juncture on timing, and these two efforts are going on. There's some cross of personnel among them, but they are mostly in touch with each other, each pursuing his own distinctive course of development.

From your perspective what do you perceive as an appropriate role for GAO in the assessment of social problems?

Dr. Sheldon: I've glanced through GAO's 50th anniversary lectures and I've gone through the statement of purpose. I've had some talks with some of your staff members and I do know a little bit about how you operate. I don't know if what I'm about to say is lodged here at GAO or in some other government agency or what. But let me start off first from my partial knowledge of GAO.

I do think that GAO, particularly as it expands its intellectual and functional horizons along these lines, can be of extreme importance in setting up information systems, though it may wish to get advice as to what goes into those systems from the social scientists, or at least work jointly with the social scientists. I think also GAO probably has access to a wide range of managerial skills, which I for one know that social scientists do not have and are not about to develop. These experiments are very difficult management jobs and there may be some skill and advice available in GAO on the management aspect.

Now when you get into the problems of program elements and the presumed effect of those elements on the target populations, then I'm not sure that, as currently staffed, GAO is the place where this kind of knowledge is to be pursued.

My guess is that those who deal in problems of economic and social relationships might have somewhat of an edge in understanding what some of these hypotheses are that tend to relate program elements to intended change and in what direction. Now if GAO is to become the locus for this kind of effort, then I would suspect that GAO would have to enhance its social science capability and here I mean substantively and not only methodologically. GAO can undoubtedly be very helpful in the management of experiments and in setting up the—as I see it now—management of experiments and in setting up the information systems. The actual variables that go into those systems, however, I'm not sure you are that well skilled at, but maybe I'm wrong.

Recently Congress has been inserting in legislation a requirement for program evaluation. Are you in favor of such a requirement and if so, should the requirement allow the agency operating the program to make the evaluation or should the requirement specify that a qualified but independent organization make it?

Dr. Sheldon: Of course in the abstract and the idea of it I approve. It is the way in which the language might be interpreted that I think allows for a great deal of hack work to be done. Now I think that if the legislation is going to be revised, it cannot be revised bit by bit by bit, whereby they say, we will now have Head Start and everybody that has Head Start must have an evaluation of it. I think that the evaluation rider must try to make clear that there are wide ranges of possibilities in implementing Head Start programs and that the evaluation must take into consideration this kind of planned variation in the implementation of the program itself—otherwise we do not get our cumulative knowledge.

The notion of evaluation, of course, I approve of, but I do think that we are ready for the next stage. That was adequate for the sixties. The *post hoc* evaluations are not good evaluations and they may never be good evaluations, and if that's all we can do, fine, but if we can get in on the program design and planning and use the evaluation for a feedback I think then that far greater progress will be made.

Now for who does the evaluation—I think that we should differentiate between first the program innovators, then the program managers, and then the program evaluators. I think that the evaluators must be specifically an integrated part of the team effort, but really independent of the program administrators, because, after all, no matter how we do it, those administrators are going to feel threatened. And I think that this should be removed from the analysis that the evaluators are engaged in. However, if we go back and make the evaluator and the administrators and the innovators all part of the same team with different subtasks, then perhaps the fear of program evaluation will be diminished. But I do not believe that the ultimate responsibility for the evaluation should be vested in the hands of the program administrator.

Is there any practical method for determining what the most productive areas of concentration should be for social programs and what the order of priorities should be with money the way it is for programs which are currently in existence?

Dr. Sheldon: You can't expect me as a social scientist to be any wiser about a straight value question than you. I do not think that that is to be determined by science. I think that those programs that get instituted emerge from some kind of expressed value judgment on the

part of the community, presumably through our Congressmen and our Senators. So I doubt very much that social science is in a position to establish national priorities. I do not think that we have any more skill than nonsocial scientists have that should allow us or others to believe that our value judgments are better than somebody else's value judgments.

Don't we tend to authorize resources to be spent to satisfy a social need before we have a good understanding of how many persons would be eligible for assistance under the description of need stated in legislation? In your opinion, should more emphasis be placed on making needs studies and conducting pilot projects so that the extent of unmet needs can be estimated and methods for meeting those needs tested before a full scale social program is undertaken? To what extent would social experimentation do this?

Dr. Sheldon: I don't think that social experimentation is the technique for gaining that initial kind of benchmark data as I refer to it. I do think certainly that those who are in social indicator effort, or at least of the descriptive end of the social indicators effort, would probably design more efficient ways of collecting so-called need data than a social experiment would allow. I think the experiment is designed for something quite different other than collecting baseline data which will determine the extent of a given social problem or set of social problems. I would not consider experimental design an efficient way for obtaining that kind of baseline data.

Program Evaluation Service

While I suppose that GAO is best known for its "cops and robbers" activities, such as the investigation of the Russian wheat sale, I have been more significantly impressed with the management and evaluation services which your staff has provided my Committee. The indications are that these activities will provide the Congress and the public with more reliable evaluation of agency performance, while improving government efficiency and saving millions of dollars.

Senator Herman E. Talmadge
Chairman, Senate Committee on Agriculture and Forestry, to Comptroller General
February 28, 1974

Eli Ginzberg
A. Barton Hepburn
Professor of Economics,
Columbia University

Dr. Ginzberg joined the staff of the Graduate School of Business, Columbia University, in 1935. He has been the Director of the Conservation of Human Resources Project, which concentrates on basic research in human resources and manpower, at the University since its establishment in 1950.

Beginning with his membership on the Committee on Wartime Requirements for Scientific and Specialized Personnel in 1942, he has held positions of responsibility on numerous public councils, advisory boards, and commissions. From 1951 to 1961 he was the Director of Staff Studies of the National Manpower Council and has been Chairman, National Manpower Advisory Committee since 1962. He also has served on the National Advisory Mental Health Council, and was Chairman of the Committee on Studies, White House Conference on Children and Youth. He serves as consultant to the Departments of State, Defense, Labor, and Health, Education, and Welfare, as well as to various business and nonprofit organizations.

Dr. Ginzberg received three degrees from Columbia University and also studied at the Universities of Heidelberg and Grenoble. He has received medals from the War Department for Exceptional Civilian Service and from the International University of Social Studies in Rome for research contributions to the study of human resources. He holds several honorary degrees and was elected a member of the Honorary Faculty, Industrial College of the Armed Forces. In 1972, Dr. Ginzberg received the Certificate of Merit from the U.S. Department of Labor.

He is a Fellow of the American Association for the Advancement of Science, and a member of the American Economics Association, the Academy of Political Science, the Industrial Relations Research Association, and the American Association of University Professors.

I can think of no topic more relevant to our theme of "Changes and Challenges for GAO" than that which our speaker today will be discussing.

Our speaker is Dr. Eli Ginzberg, A. Barton Hepburn Professor of Economics at Columbia University and Director of the Conservation of Human Resources Project there. The topic which he has chosen, and which exemplifies his work and personal interest, is "The Federal Stake in Health Care."

GAO is becoming increasingly involved in evaluating Federal programs and activities in many fields, including those in the health and medical areas. For example, our recent report about health facilities construction costs was the result of one of our most intense and extensive audit efforts. The subsequent high demand for that report indicates that the Congress, as well as the general public, are very concerned about this area of domestic affairs.

Dr. Ginzberg has been on the staff of the Graduate School of Business at Columbia University for nearly 40 years. He has also been active throughout his life as researcher, author, and consultant. He has been engaged in many activities and has received many honors and awards for his work.

Dr. Ginzberg is probably known to a broad section of this audience through his books, which number over 40. He has addressed himself to a variety of topics, including human resources, manpower, health services, career guidance, and even women's lib. He is known to some GAO staff members more directly through his participation last fall in the conference on the evaluation of health programs which was sponsored jointly by the National Academy of Public Administration and the General Accounting Office. At that time, Dr. Ginzberg spoke on the topic of "Quality of Health Care." His presentation was so excellent that we felt it would be worthwhile for a greater number of our professional staff members to hear his views.

—Comptroller General

The Federal Stake in Health Care

Dr. Eli Ginzberg

This is the second opportunity I have had to discuss health policy with the senior staff of the General Accounting Office during the current year. I was flattered by this fact until I reflected that it probably had more to do with my age than with my expertise: I am one of the few people who have had more or less continuous exposure to different aspects of the Federal health scene for more than three decades.

Having reached the conclusion that age is a critical factor in the opportunity offered me to speak with you today, I have decided to exploit it and to touch upon several selective dimensions of the Federal health scene from the vantage of long-range perspective.

One minor observation. As I formulated it, the title for my presentation was "The Federal Stake in Health." It shows up on the program as "The Federal Stake in Health Care." For reasons that will become clear later on, I prefer to drop the term "Care." I am much more interested in health than in health care. And as we shall see, the two are by no means interchangeable.

The best way to put the current role of the Federal Government in health in perspective may be for me to set out briefly the major trends prior to 1965 when Medicare and Medicaid were passed; then to analyze some of the principal changes during the past 8 years; and, finally, to venture a look ahead based upon recent trends and our present predicament.

At the end of my presentation I will step out of my role as an observer of the passing health scene and make a few recommendations concerning the opportunities GAO might seize in this critically important area in order to strengthen Federal policy.

While my presentation will start with the expressed goals of Federal health policy and the changes in these goals over time, I will pay particular attention to the unexpected consequences of the goals which Congress has established. It is one thing for Congress to establish a particular goal; it is something else again whether or not the country may be forced to detour, sometimes for a very long while, in its pursuit of national goals.

Government's Role Before World War II

Let me start my account with the role of the Federal Government in health prior to World War II. There was a public health service, the roots of which went back to the 18th century, but which, despite its long history, was a relatively small operation: it ran a few hospitals and had some limited but important duties in the area of preventive medicine. The Army and the Navy each ran a small medical department. And there was a medical system under the control of the Veterans Administration, the long-

term head of which was a Christian Scientist who did not believe in spending money on health. In addition, the Federal Government spent a small amount of money on the rehabilitation of the severely injured. The most important point to note is what the Federal Government did not do. For example, when we passed the Social Security Act in the mid-1930s, health was left out. This was a deliberate omission. And in sum, up to World War II the Federal Government had only a minor stake in health.

Impact of World War II

The war brought a great many changes, both in scale and quality—changes that, in my opinion, had long-term consequences. It was my privilege to serve in World War II as the senior logistical advisor to the Surgeon General of the Army, which at that time included the Air Corps. The Surgeon General of the Army had responsibility for over approximately 45,000 physicians and 100,000 nurses and another half million military and civilian personnel who provided health services for the military inside and outside of hospitals in the zone of the interior and overseas. I recall that at peak we had about 625,000 patients in the hospital on one day! The professional leadership of this large medical undertaking rested with the senior professional consultants who had been drafted from civilian life. They brought the best of civilian medicine into the military, and they left an indelible mark on the Federal Government's concern with quality, which has persisted from that day to this. When General Hawley at the end of World War II went with General Bradley to reform the Veterans Administration's health system, he, too, relied heavily on the professional leadership in civilian medicine.

Postwar Years

The first consequence of the war, therefore, was the radical transformation of the medical services of the military and the Veterans Administration. The second consequence was the much heightened interest in and support for medical research. The National Institutes of Health, also dating back to prewar years, really came into their own after World War II.

In 1946 Congress entered a new domain when it passed the Hill-Burton Act, placing Federal funds for the first time at the disposal of the states and localities with the specific aim of expanding the opportunities for people to gain access to health care by facilitating the building of hospitals, particularly in rural and low-income areas. It must be recalled that there had been very little hospital construction in most parts of the country for the decade and a half preceding, first because of the depression, second because of the war.

The early postwar years saw President Truman try, but fail, to amend the Social Security Act by including national health insurance. The Wagner-Murray-Dingell bill was put up and voted down not once but several times, in part because of the position of the American Medical Association but in my view primarily because of a lack of interest in so radical a change by the electorate. The history books tell us that President Roosevelt, just before his death, had agreed to push for national health insurance, yet I question whether even Roosevelt would have been able, had he lived, to secure its passage at that point in time. In the last year of his administration President Truman, recognizing that health insurance was a dead issue for the time being, established the Magnuson Commission to review the health needs of the American people. Reporting just before the end of Mr.

Truman's term, the Commission recommended a considerable increase in Federal expenditures for manpower and facilities—although the figures look very small in the present context—and it also recommended that the social security system be used to provide health benefits for the aged. A decade and a half intervened before this recommendation was accepted and became part of the law of the land.

A few more observations about the 1950-65 period. It should be noted that the American people substantially increased their total expenditures for health care—from 4.6 to 5.9 percent of the GNP. This is a sizable increase for a 15-year period. However, it should be stressed that almost the entire increase occurred in the private sector. Public spending for health—Federal, state, and local—amounted to approximately 25 percent of total health expenditures, and it was still 25 percent in 1964.

These years also saw not only a very large and sustained increase in Federal funding for medical research, but such indirect consequences as the flow of considerable Federal funds into medical education. The AMA objected to direct funding of medical schools, with the consequence that Congress, the deans, and the bureaucrats reached an understanding that the research funds could be used to help support the increasing financial requirements of our medical schools.

The congressional enthusiasm for financing medical research is suggested by Congressman Melvin Laird's comment that medical research offered the best kind of health insurance for the American people. With Eisenhower in the White House, with the public willing to give Blue Cross and Blue Shield and commercial insurance their head, with the AMA continuing to balk at any significant structural change, the only way Congress could act on the health front was through construction grants (Hill-Burton) and funding for medical research.

Those who had fought and lost the fight for national health insurance in the 1930s and again in the 1940s continued to criticize American medicine because of the unsatisfactory coverage of many parts of the population. But the middle-class electorate was more or less satisfied with the protection of private insurance, and the trade unions enjoyed the power and influence which they exercised over the large health and welfare funds that became available via collective bargaining.

There was only one thing wrong. Many middle-class people found themselves strapped by the heavy medical bills they had to pay for their aging parents. In the latter part of Eisenhower's second administration it became clear that the medical problems of the aged needed attention, which led to the Kerr-Mills mechanism in which the Federal Government sought to help states and localities cover some of the costs that went beyond the resources of even middle-income people. It was not until 1965, however, that the not very satisfactory Kerr-Mills approach was discarded in favor of Medicare.

Increase in Federal Expenditures

Let me put a few figures before you now to indicate what has happened between 1965 and 1973. In 1965 Federal expenditures for health totaled $5 billion. The 1974 budget shows a total of $30.3 billion. In short, within a period of 9 years, health expenditures increased sixfold in absolute terms; their share in the Federal budget increased from 4.4 percent to 11.3 percent.

A closer look reveals some interesting additional developments. In 1965 less than a billion dollars of the total Federal

health expenditure was directed at health care financing—that is, financing that provided direct benefits to the consumer. The '74 budget carries a figure of approximately $20 billion for this part of the total bill. Thus, while the health financing expenditures of the Federal Government increased sixfold over this period, there was a twentyfold increase in the financing of health care.

With the single additional exception of expenditures for health education and training—which increased from about $300 million to $1.3 billion, or roughly fourfold—there was very little change in any of the other sub-components once one allows for inflation. The expenditures for medical research and construction remained more or less flat.

It is interesting to note that by the mid-1960s the President, Lyndon Baines Johnson, not Richard Nixon, had become restive about the steep increases for medical research. One way to put it is to say that he called the professors' hand. If medical research was as good as the professors had kept insisting, then it was only right and proper that the American people should benefit from the results of this research. If perchance the research was not paying off, then it was clearly desirable to shift the direction of Federal expenditures. In any case, the provision of additional health services was up; expenditures for medical research were down.

Consequences of Medicare-Medicaid

It is worth considering briefly the consequences of Medicare-Medicaid with respect to the expansion of health services to the American people. Fortunately, we have a useful document to guide us—*Health Service Use: National Trends and Variations,* a joint project of the University of Chicago and HEW (HEW publication no. 73-7004, October 1972). The twentyfold increase in the financing of health care did, in point of fact, broaden access for the poor. But there is nothing in the document that speaks to the question of quality. All the data relate to the quantity of services. What the monograph makes clear is that, since the passage of Medicare and Medicaid, the poor have substantially increased their opportunities to secure health services. While they do not see doctors quite as frequently as do people in the higher income groups, once they make contact with the medical system they average more visits per doctor. Moreover, they have a higher rate of hospital admissions than do people further up on the income scale. And when it comes to surgery they undergo 50 percent more surgery. Of course to a skeptic like myself, this last finding is not necessarily a gain!

Only when it comes to dental care can one still find sizable class differences—the rich see dentists more frequently. But even here, once the poor make contact with a dentist they undergo more treatment.

The foregoing are important facts even though, as we have already noted, they leave out of consideration the critical issue of quality.

Let me now call your attention to some of the things that have not happened despite Medicare and Medicaid. Half of the total health cost of old people is still not covered by Medicare. Despite the efforts of the Federal Government to establish minimum standards for Medicaid, state differentials remain very wide. In Mississippi the average Medicaid payment per year is under $100. In California it is over $1,000.

Next we must note that, according to the administration at least, the Federal Government is beginning to run out of money—hence the budget proposal to increase the charges for Medicare patients for hospital care.

Dr. Eli Ginzberg of Columbia University, GAO lecturer on March 22, 1973 (second from left); on left, A. T. Samuelson, Assistant Comptroller General; on right, Elmer B. Staats, Comptroller General, and Gregory J. Ahart, Director, Manpower and Welfare Division.

Then we have what I call the Ball dilemma. The former Commissioner of the Social Security Administration (Robert Ball) has insisted, on the one hand, that the system remains imperfect as long as it lacks comprehensive health coverage. On the other hand, he is also the authority for the statement that it is unlikely that Congress and the public will load any more tax on to the system. If that be so, clearly health benefits cannot be added.

Unexpected Consequences

I indicated in my introductory remarks that unexpected consequences of legislation were likely to be as important as the specific goals being pursued. When Medicare and Medicaid were passed, assurances were given by the Congress and the administration that the Federal Government would not interfere with the existing structure of medical practices. History has shown this to be a promise made but not a promise fulfilled. At the present time the Federal Government is deeply involved in policy determinations about the numbers of medical personnel to be educated and trained. It is seeking to influence the distribution of graduates; it has put into place and is keeping special constraints on the ability of hospitals to alter their price structures; it has financed new methods for delivering health care nationally to the poor and more recently it has indicated that it plans to take some initiative with respect to the financing of payment systems for the nonpoverty population; and it is leaning ever more heavily on the medical profession to control its fees and to alter its decisionmaking so as to improve hospital utilization.

These are by no means the only policy areas in which the Federal Government is currently operating, but they indicate

the wide range of its influence and impact on the health system as a whole.

Even while government is ineluctably forced to consider the consequences of the many dollars it puts into the system, the system has a momentum of its own that is not to be minimized. Just one illustration: at the present time two-thirds of all Medicaid money is being spent for institutional care—over 40 percent for hospital care and 23 percent for care in nursing homes. I defy anyone to find in the discussions leading up to the passage of Medicaid that this was intended or even within the purview of the framers of the legislation.

The burden of the foregoing is to call attention to the fact that no matter how much money is flowing into a health system, not enough will flow to provide equitable access for all—surely not as long as the system is able to respond, at least in part, to market forces.

Israel has more physicians per 1,000 population than any country in the world. But Israel is short of hospital beds so that the only way one older gentleman was able to have his hernia operated on—he had been on a waiting list for 2 years—was to be elected President and have his condition declared an occupational hazard. In Soviet Russia, the academicians have their own hospitals and their own medical service, preferring not to make use of the public system. When I was in Hungary in the late 1960s, I found that socialized medicine was not an answer to a shortage of facilities: in Budapest, they put two people in a bed. And in Bulgaria, the most orthodox of communist countries, they were still unable, despite liberal benefits, to get physicians to take up practice in rural areas.

Disturbing Promises

Against this background I am disturbed by the promises that have been made and the promises that continue to be made to the American people about what the Government will do to improve their health. The passage by Congress of financing for people needing artificial kidney support carries a potential price tag of $1 billion a year. Since we have no way of preventing death and have only limited ways of postponing death, the potential expenditures once we start down this road are limitless.

But the Federal Government is in difficulty on the health front in areas that go far beyond financing. It is my belief that the Federal Government is now caught up in health policies affecting, as we have seen, education, research, and delivery systems where the outcomes of its actions may not be nearly as felicitous as its intentions. We now have a Congress and an administration committed to curing cancer—a noble objective that probably cannot be met and that may in fact lead to serious distortions in the progress of biomedical research. One historical note: the decision to cure cancer is not a new one—it was the basis in 1928 of the first congressional efforts to support medical research.

Another way to indicate concern with the drift of events is to call attention to a point made by Dr. Shannon a few years ago to a committee chaired by Senator Ribicoff when he observed that one is unlikely to get ahead in difficult areas if expenditures for the cutting edge—education, research, development—are starved while most of the funds are devoted to doing more in areas where we do poorly.

Opportunities for GAO Contribution

Now, a few words about the potential for GAO to make a contribution in the health arena. I do not think it was wise for GAO to take HEW to task recently for failure to monitor health educational

programs against specific manpower requirements. I do not believe that a congressional determination that we are 50,000 doctors short is a sensible criterion against which to measure progress. It would have been better, in my opinion, for the GAO report to have asked HEW to reassess the changing educational system in light of changes in the delivery system and to have elicited HEW's recommendations as to alternative criteria that might be used to assess the adequacy or lack thereof of the present training mechanism. My personal view is that we are closer to a medical manpower surplus than we are to a shortage.

Secondly, I believe that GAO should pay more attention to the large Federal medical systems now in place. The Department of Defense is planning to ask Congress for permission to pay a bonus of $15,000 a year to attract and hold scarce medical specialists. Before we give the taxpayers' money away, it would be sensible for GAO to lean against the Department and suggest that they make economies in the utilization of medical manpower through interservice coordination and broader regionalization that would involve the Veterans Administration.

Thirdly, both Congress and the administration remain deeply concerned about the continued inadequate access of the poor to the medical care system. I submit that there is considerable experience available that should be critically evaluated and that GAO might take the lead in such evaluation. There are the OEO and HEW experiments; there is increasing relevant experience via our Medicaid experiment; Sears-Roebuck has just closed out its program aimed at bringing physicians to rural areas. In short, GAO should try to tease out some of the critical lessons from these earlier efforts.

Fourthly, there are large bodies of data that are available that have never been properly analyzed which, if carefully studied, might lead to important financial savings. To illustrate: for the same diagnosis patients tend to remain in eastern hospitals 30 percent longer than they remain in west coast hospitals. With hospital costs running over $100 a day, this is not a minor matter—especially if it reflects nothing more than tradition and professional preferences.

These are just a few of the ways in which GAO can be helpful. In studying health GAO should remain ever alert to the point I made earlier about goals versus unexpected consequences. This very morning I sat with a group of manpower specialists and we decided that the Job Corps had much to commend it because of the quality of the health services it provided enrollees. I could make a strong argument that one of the outstanding contributions of Medicare and Medicaid was the contribution it made to expanding employment and raising the income of poorly paid hospital workers. But if our manpower programs are to be justified in terms of health and our health programs in terms of employment, the already high confusion in Washington will rise still higher.

DISCUSSION

What is your opinion of the future of national health insurance?

Dr. Ginzberg: I believe it is an even worse hornet's nest than welfare reform and for much the same reason. There are too many variations in income, facilities, patterns of practice to permit the Federal Government to write national legislation that will be constructive both in New York and Mississippi. Moreover, I think all of the bills have undercalculated the costs and overcalculated the benefits and that none of them has paid proper attention to—or has even considered—the unexpected consequences.

Does a lack of jobs prevent the rehabilitation of drug addicts?

Dr. Ginzberg: While I share with the President a cautionary attitude about public service employment as a general response to chronic or cyclical unemployment, I would like to see the Emergency Employment Act serve special purposes, such as providing work rehabilitation opportunities for special groups such as drug addicts.

In the social welfare area, do you prefer cash payments in lieu of services?

Dr. Ginzberg: I think both have their strengths and limitations. The most important thing is to be sure that when government puts new funds into an area, it bargains with the providers to get changes in the direction where changes are needed. The tragedy with Medicaid was that the states and localities did not bargain enough with hospitals and the medical profession. One should also be careful not to encourage bad habits. In the original Medicare bill the 2 percent overrun for hospitals was a serious error.

What is your view of the nurse situation? Can they help alleviate serious regional and local shortages of medical personnel?

Dr. Ginzberg: In my view nurses can play a much bigger role in the provision of health services to the poor. As I have written elsewhere doctors are allergic to the poor. When I was in Alabama recently I advised, in opposition to Governor Wallace, that the State not build any more medical schools but rather strengthen the public health nursing system, raise nurses' salaries, and give them more responsibility for providing ambulatory health services to the rural and urban poor.

Do you think that prepaid group plans offer a potential for reducing spiraling health costs?

Dr. Ginzberg: I have been impressed with the relatively slow growth of prepaid health insurance. In New York HIP is weaker, not stronger, than it was. I recently looked at the Kaiser system in Hawaii. It apparently offers a reasonable deal to poor people if they are willing to put up with the relatively long waiting times for elective surgery. As I indicated earlier that may be a boon, not a bane. I have always been struck with the fact that prepayment plans attract physicians who, among other things, like to have considerable time off. As far as I can see, under those conditions prepayment can hardly prove a major way of saving money. I expect prepayment to grow, but slowly. In my view most Americans want more degrees of freedom of choice and most physicians prefer not to be members of groups.

What do you see to be the future of physicians' assistants?

Dr. Ginzberg: As I indicated earlier, I believe we are closer to a situation of medical surplus than medical shortage. If I am right, the expansion in physicians' assistants will move ahead slowly. One has to contemplate the likelihood that nurses will become more effective competitors and the fully trained physician may become skittish about being undercut.

To what extent do you think certain health data, such as infant mortality, etc., reflect diverse health care?

Dr. Ginzberg: Most comparisons between the United States and small Western European countries are invalid. The genetic diversity in this country would require one to average the whole of Western Europe for valid comparisons. Moreover, very little is known about the inter-

action between environmental pressures —the style of life—and health indices. The literature suggests at most that improvements in prenatal and postnatal care may have some *slight* effect upon infant mortality. I believe that health care is overrated in its influence on longevity. Most people are born healthy and if they don't step in front of a truck they will live until they begin to disintegrate, at which point physicians cannot help them very much.

How does one get physicians into the rural areas?

Dr. Ginzberg: The barefoot doctors may be a useful solution in China, but let us remember that over 90 percent of all Americans live within an hour's drive of an urban center with a hospital. I do not believe one can get physicians, much less physicians' wives, to take up residence in the countryside. Moreover, I do not think that if they did, it would add much to the health of the rural population. The major cause of premature mortality and excessive morbidity are homicide, suicide, drugs, overeating, and similar behavior patterns. The U.S. homicide rate is 13 times that of Western Europe! Another point: more medical care is not necessarily the answer. A recent monograph suggests that we kill 15,000 people a year from unnecessary surgery. A useful insight into this question is provided by professors of medicine who keep the members of their family for the most part out of the hands of physicians!

Auditing Medicaid and Medicare Programs

Mr. Speaker, I along with 17 other Members of Congress, have requested that the General Accounting Office conduct an investigation into the internal auditing procedures which exist within the medicaid and medicare programs. Until we can efficiently monitor our national health care programs, the American people will be paying an enormous burden for a poor quality of medical care. Compassion must displace greed and the Government is the only agency to remove the current monetary incentives for medical dealers.

Congressman Edward I. Koch
Congressional Record
February 26, 1975

Ralph E. Kent
Senior Partner,
Arthur Young & Company

Shortly after receiving a B.Sc. degree from The Ohio State University in 1937, Mr. Kent joined the New York Office audit staff of Arthur Young & Company. He was admitted to the partnership in 1949 and elected to the firm's Management Committee in 1954. He became the firm's Managing Partner in 1959 and its Senior Partner in 1972. He is Chairman of the firm's Management Committee and also of the Management Council of Arthur Young & Company (International).

Active in professional accounting societies throughout his career, Mr. Kent served as President of the American Institute of Certified Public Accountants in 1969 and is a lifetime member of the Institute's Governing Council. Among the posts he has held in the New York State Society of CPAs are Vice President, member of the Board of Directors, and member of the Executive Committee. In 1973, he was awarded the AICPA's Gold Medal, the top award of the accounting profession.

Mr. Kent is a past president of The Ohio State University Alumni Club of New York, a past vice president of the University's National Alumni Association, and has held a number of other posts associated with the University.

His current activities include service as a member of the President's Commission on Personnel Interchange, Vice Chairman of the Board of Trustees of Mills College of Education, President of the Board of Trustees of the Financial Accounting Foundation, and President of the Ohio Society of New York.

Today we will be hearing from a prominent leader in the public accounting profession, Mr. Ralph E. Kent. Mr. Kent is senior partner of the accounting firm of Arthur Young & Company, one of the "Big 8" firms of the public accounting profession.

GAO has a great interest in the work of the public accounting profession and a great respect for its long tradition of high standards and integrity of performance. Our professional staff includes many members who have worked for public accounting firms. Many of the auditing and reporting procedures that we now follow had their origins in public accounting practice.

Possession of the CPA certificate is a cherished goal of many members of our professional staff, and deservedly so. At present, we have about 500 CPAs on our staff and we always have many others who are actively preparing themselves for the difficult and challenging examinations involved.

The subject of our speaker's discussion today is "Changes and Challenges for the Accounting Profession." This subject parallels the general title of our lecture series and fits in very nicely with it.

We look forward to his remarks because, in many ways, the work of the public accounting profession has many counterparts in our own work. In recent years, some members of the public accounting profession have encountered problems in the way of lawsuits growing out of their practice, questions about their work, and closer surveillance by the SEC and other regulatory authorities. The outcomes of all of these matters are of interest and concern to us with GAO as we plan and carry out our accounting, auditing, and evaluation work in the Federal agencies.

Looking at the accounting profession more broadly, we note the establishment nearly 2 years ago of the independent Financial Accounting Standards Board to develop and promulgate accounting principles and standards for private business enterprises. This was a landmark event that augurs well for the future of the accounting profession.

Our speaker played a key role in that development and, among his many responsibilities, he functions as President of the Board of Trustees of the Financial Accounting Foundation. This Foundation has the job of appointing members of the Standards Board and its Advisory Council and obtaining the funds to finance their operations. Finally, but not least, Mr. Kent is a member of our own consultant panel, and I value highly his participation and counsel.

—Comptroller General

Changes and Challenges for the Accounting Profession

Ralph E. Kent

It's a pleasure to be invited to come and talk with you. If I may make a confession, it's more of a pleasure than it might have been 4 or 5 years ago because I didn't know as much about GAO 5 years ago as I possibly should have known, and I certainly didn't know as much then as I do today.

My interest was whetted as a result, in part, of the work of the Financial Accounting Foundation and the Financial Accounting Standards Board and, in part, by having been invited to join the Comptroller General's Consultant Panel. These activities then led me to observe Don Scantlebury at work on the Auditing Standards Executive Committee of the American Institute of CPAs, Ellsworth Morse at work on the Financial Accounting Standards Advisory Council, to read your quarterly *GAO Review* and other reports that you have issued from time to time. All of this has enabled me to acquire a good deal more knowledge about GAO than I had before.

I want to say also that, having an opportunity to observe GAO and in particular Mr. Staats, I have developed a great respect for him. He's a man of great integrity and personal warmth, dedicated to his task, a great representative of GAO, and clearly enjoys fine relations with Congress. I am delighted to see those qualifications and characteristics and you undoubtedly appreciate those even more since you see more of him than I do. Obviously I come to praise Caesar, not to bury him.

Now, to the subject of changes and challenges for the accounting profession. I think in terms of the so-called public practice section of that profession. Many of you are a part of the accounting profession also, and I was interested in the fact that you have 500 CPAs in GAO. I have lived in the public practice section of the profession for some 37 years and I'm happy to talk about that. In doing so I will want to draw a few connection points between that section of the profession and GAO.

American Institute of CPAs

But let me first just very briefly tell you a little bit about the public practice section of the American Institute of CPAs—the AICPA. I am emphasizing public practice, because we have members in business and in industry and in government and in education, all in addition to those that are in day-to-day public practice.

The Institute had some 104,000 members as of July 31, 1974, which was the end of our fiscal year and our regular census date. That was up from 75,000 just 4 years earlier, a 40 percent increase in a 4-year period. That is a good indica-

tor of how fast the accounting profession is growing. Some 60 percent of those 104,000 members are in public practice, as I am. Thirty-four percent are in business and industry, 3 percent in education, and 3 percent in government. The actual number of members in government is 3,500, so that if all 500 CPAs in the GAO are members of the Institute you have one-seventh of that group.

Just a couple more statistics about the American Institute so you will have a better picture of our organization. It comprises about 15,000 so-called practice units, firms if you will. The Institute compiles statistics on membership, based on the number of members from a particular firm. Twenty-one and a half percent of our members in public practice, which would be about 12,000 or 13,000, are in public practice in firms in which there is only 1 AICPA member. This might be a small practitioner in Pocatello, Idaho, who is the only member of the Institute in his accounting firm. He may or may not have other people in his office, but if he does, they are not members of the Institute. Thirty and a half percent are in firms with 2 to 9 members, which would account for another 18,000 or 19,000 Institute members. Some 48 percent of the members are in firms with 10 or more AICPA members. The 25 largest firms account for 39 percent, or more than three-fourths of the 48 percent.

If we go back and resummarize, you will observe that we have a large number of CPAs in very small practice units and we have a large number of Institute members in very sizable accounting firms. This variation in size of firms requires the AICPA to balance its activities and its interests between the interests of the large firms and the interests of the small firms.

I was also thinking about the relative size of GAO if you were a firm, because in essence, you are one of the larger accounting firms. I would speculate that you would rank as the ninth largest. You would be one below the so-called "big eight," and you probably would not be far removed from the bottom end of that group. I base this on the number of professional people that you have within GAO. When I think of the number of wide-ranging responsibilities that GAO has, and that Mr. Staats has as Comptroller General, I think I feel a little more comfortable in my own position at Arthur Young than I would in his position, with his responsibilities, because his responsibilities are so broad-ranging.

I am going to divide my comments into four sections: accounting standards, on which I will have quite a bit to say; auditing developments; the profession's relations with your fellow agency, the SEC; and then fourth, that happy subject of litigation. Just as you are interested in the results of litigation, I want to assure you that those of us who are in practice also have an interest in it.

Accounting Standards

Thus far in history, as some of you know, three agencies have established accounting standards. The Committee on Accounting Procedure was established in 1939 as an arm of the AICPA. That committee lasted for 20 years and was succeeded by the Accounting Principles Board in 1959, which in turn stayed in business until 1973 when the Financial Accounting Standards Board was organized. The first two of these were both arms of the AICPA, funded by—controlled if you will—the American Institute of CPAs. The third agency, the present one, the Standards Board, is not, and I'll have more to say about that later on. It's an independent body in the private sector.

Ralph E. Kent, Senior Partner, Arthur Young & Company, lecturer at GAO on December 5, 1974, with Elmer B. Staats, Comptroller General and, on left, E. H. Morse, Jr., Assistant Comptroller General.

It so happens I was a member of the Committee on Accounting Procedure in its latter years before it went out of business in 1959. We met about four times a year. We worked reasonably hard but we didn't feel any tremendous pressure to deal with all of the problems or get them all resolved as quickly as maybe some people might have thought. There wasn't much criticism until the latter part of the 1950s.

Accounting Principles Board

Then, Al Jennings became president of the AICPA in 1958, and like every incoming president he had to focus on some activities that he was going to emphasize in his year of office. He focused on the need for a new approach to the establishment of accounting standards. Out of that came the Accounting Principles Board. One key difference between that Board and the Committee on Accounting Procedure was that the Board was to be heavily based in research conducted before decisions were taken.

The APB got off to a slow start, in part because of an error in organizational structure. As originally devised, they wanted a representative from each of the 8 largest firms out of a total membership of 21. In its first stages, they insisted that the representative be the senior partner of the accounting firm. I would have to frankly say that in the large accounting firms we have technically oriented partners who are more expert technicians than the senior partner of the firm. The senior partner is engaged in a lot of activities, including, among other things, managing a large accounting firm. It took 2 or 3 years to get away from that

requirement and to bring in the top technical partner from each of these firms.

The activities of the APB built up to a crescendo of what could only be characterized truthfully as frenetic activity. In the last 4 or 5 years of its existence, it was meeting about every 6 weeks for 3- or 4-day sessions, which would begin with breakfast meetings and would last well into the evenings—sometimes as late as midnight—as the Board endeavored to come to grips with accounting standards problems which were surfacing in the boom periods of the late 1960s. Even so, the Board came in for criticism as not all the problems were being dealt with as expeditiously or as quickly as many of the critics thought they should be. Too many peculiar accounting methods were coming out of the woodwork in this era of conglomerates and emphasis on earnings per share. The APB, no matter how hard it worked, couldn't quite cope with all these problem areas and resolve them.

Wheat Study Group

So in 1971, pressure developed for a new look at how accounting standards should be set. This led to the formation of what is known as the Wheat Study Group, which was formed in March 1971 —a group of seven people, three of whom were drawn from the accounting profession and the others from outside the profession. Frank Wheat, for example, was a lawyer in Los Angeles, a former commissioner of the SEC, who was then back in the practice of law at the time he was asked to take this on. This group did an excellent job, and they rendered their report 1 year to the day after they received their charge.

They recommended that there be a full-time, fully paid group of seven members, constituting the Financial Accounting Standards Board. These members would have no outside interests and would be completely detached from former business or professional relationships. The organization was to be adequately staffed. Another key part was that it was not to be an activity controlled by the AICPA. The new organization was to be sponsored by five organizations, of which the AICPA was one, the Financial Executives Institute was a second, the National Association of Accountants was a third, the American Accounting Association was a fourth, and the Financial Analysts Federation was the fifth. And the new Standards Board was to be completely separate from any of these five sponsoring organizations.

Role of the Financial Accounting Foundation

The Financial Accounting Foundation was established, in essence, to raise the funds for this new venture, to appoint the members of the Standards Board, to appoint the members of the Advisory Council, to establish initial operating procedures for the new organization, and, as an ongoing responsibility of considerable significance, to exercise oversight of the structure itself. I want to differentiate between structure and the technical output of the Standards Board. Under the bylaws, the trustees of the Foundation, even though they raise the money and make the appointments, are prohibited from trying to influence in any way what goes on the agenda of the Standards Board, what decisions and what recommendations are made by the Board. The trustees can't even use their budgetary review process on the cost of the Standards Board to influence any of those activities in any way. The oversight function in effect means that if we find, for example, that seven men can't do the job, because there's too much volume, then we can think in terms of increasing it to eight or more. There is

no need to think about doing this at the present time. If we decide that their due process procedures—and there are elaborate due process procedures built into the new activity—aren't fulfilling that aspect of the criticism that the APB came in for, we could go back and change those due process procedures. So, the trustees' role is that of a separate group, keenly interested in the results of the work of the Standards Board, not responsible for the technical output but having a responsibility to see that it works. That's the oversight function.

Financial Accounting Standards Board

We tried to be responsive in the establishment of the new organization to the principal complaints that had arisen in connection with the APB. We are determined to have good research, because in the final analysis we did not have effective research in the APB days. We determined to keep the avenues of communication open between the standard-setting body and the rest of the people in the financial community who are interested in accounting standards.

One of the criticisms of the APB was that when it came out with a draft of an opinion for exposure, it was felt they had pretty much cast their thinking in stone, and it was very hard to get anything changed, even through the exposure process. We've corrected that in the present procedures by providing first for a discussion memorandum, which is a carefully-prepared document that can run as long as 100 or more pages. This goes out to the exposure group of analysts, corporate officers, the sponsoring organizations, practitioners, government representatives, the SEC, and I assume they cover GAO. No conclusions are indicated, and no tentative thinking is indicated in the discussion memorandum. It's just a recitation of the basic problems and the various background pieces of information that warrant consideration in trying to come up with standards. The Board does get comments. Public hearings take place after that, and these are all conducted by the Standards Board.

Then exposure drafts, which do indicate positions, are sent out. They have public hearings on these and they also receive written comments. These processes have specific time requirements provided so, in theory at least, the commentators and all of the interested groups have time to digest these proposals and make meaningful contributions. These proposals are now coming out in quantity and at such a pace that anybody who's trying to do the job of commenting is swamped with work. The problems are not easy and I know we've felt that at Arthur Young. We try to comment as a firm on every one of these discussion memoranda and exposure drafts when they come out. While we have a lot of people, they are busy, and to come to grips with these difficult problems and to exchange views within the firm to make sure we've done our own thinking in a full, comprehensive manner does take time.

The Standards Board got off to a slow start, using July 1, 1973, as the effective date of transition from the APB. That is when the APB wound down its activities and said to the Standards Board, "We're through, we're out of business, and whatever we didn't get done is yours." So we start with the typical problem that you can anticipate in a brand new organization with no particular research done on the subjects that they put on the initial agenda, because they didn't start off with the same items that were on the APB's agenda. The Board had to get the research done and had to do everything else to try to get the process started. I think we have clearly been in the honeymoon period. I believe we've been in more of a honeymoon period

than it appears that President Ford is going to be in, in part because we've only issued two opinions so far. Another two or three or four opinions will be coming out as of the end of this month or the very early part of 1975. But like President Ford, we're also interested in good marriages with our sponsoring organizations and the financial community and interested in constructive relations with government agencies, certainly including the GAO, the SEC, the FPC, the FCC. We're interested in having liaison relationships with each of these agencies, because they are directly involved in some of the accounting standards we're going to be producing.

We have an excellent Board. Of our seven-man, full-time Board, four were drawn from public practice, two of whom were 40 years of age; one of the other two was sixty; and the fourth was a little over that, so we've got a cross section in age. We have one from government, Arthur Litke, from the Federal Power Commission; one from education, Bob Sprouse; and one from industry, Bob Mays. We think it is an excellent Board. There was some criticism because we didn't have a financial analyst on the Board.

Financial Accounting Advisory Council

We have an excellent Advisory Council, that being the organization of which Mr. Morse is a member. We have 28 men and women on the Advisory Council, drawn from different backgrounds. We have corporate lawyers, economists, practitioners, Federal Government representatives, industry representatives, and academicians. Our bylaws provide that no one of these groups should have disproportionate representation so that no particular segment or group interested in financial reporting will have undue infiuence on the Advisory Council. This is important since the Council does influence what goes on the agenda of the Standards Board.

Funding

Our funding has been excellent. We're at the end of our second full year, if you count 1973 as a full year. We have raised something approaching $8,000,000 so far. Our annual budget is running around $3.5 million. Money has not been a problem. If somebody told us to worry, we'd probably be willing to worry a bit about the impact of the economy in 1975 on fund-raising. But the contributions are spread so that there's really no dominant contributor. This is another safeguard we've built into the financing. We do not want dominant contributors whose loss of support would be critical to the funding process, because we recognize it's inevitable that just as soon as statements of financial accounting standards are released, there are going to be industry representatives who are going to be unhappy. Many won't like conclusions that will adversely affect their profit results.

The maximum contribution from industry has been pegged at a ceiling of $30,000. There are five corporations at that level, and they would be the top five in the *Fortune* 500 listing. The large accounting firms haven't been spared and we kind of wish we could enjoy that lower limit. Each of the so-called "Big 8" accounting firms are contributing $200,000 a year and has made a pledge in that amount for a 5-year period. So our funding is well in hand. It's not trouble-free, but the response has been good and we're hopeful our requests will continue to be well-received.

As we say on the funding, as we say on everything else, in the final analysis the nutcracking will take place in the quality, the logic, the reasoning, and the soundness of the statements issued by the Standards Board. If the Board does the job we believe they can do and we're

optimistic that they will do, then we will have the required support from the financial community. If they don't come up with sound, reasoned, and logically based opinions, we're going to be in trouble.

Some FASB Problems

We're beginning to get a few criticisms now that the Standards Board is not active enough in the so-called fire-fighting phase, that is, the new problems which come up and on which you don't have the time to go through the full due process procedure. This process can take months or even years, starting with putting the problems on the agenda, getting the research done, getting discussion memoranda written, getting exposure drafts out, holding public hearings, and the rest of the routine. Questions come up every day in practice and these have to be dealt with promptly.

In days gone by, the AICPA was able to do that, because it had the responsibility for setting the standards. They were able to come up with standards through the professional body that would be accepted. They would be changed, if necessary, at such time as the APB had done all of its homework and had completed its thoughtful study. If they reached a different answer, they would make a change in the interim solution but in the meantime they had a means to deal with these problems. So we have to take some steps to get the fire-fighting, day-to-day problems dealt with. This runs a little bit counter to the due process of the FASB, but the profession has delegated to the Standards Board the authority to establish standards. So we can't now establish a group within the practice profession that would have the authority to prescribe solutions. The AICPA can prescribe guidance or guidelines to move on in the meantime, but that needs to be done on a cooperative basis with the Standards Board. We'll get that worked out, but it's a problem at the present time.

There are many tough problems ahead for the Standards Board, because they're dealing with difficult and complex subjects. They aren't dealing with any easy ones. They're dealing with things like foreign currency translations, which they started to work on 18 months ago. I think that's one of the final statements that will be coming out early next year. Guidance is needed because foreign currency transactions are now altogether different than when we had fixed money rates. Now the money fluctuates and it makes a tremendous difference in your financial reporting as to how you account for these fluctuations.

Price level accounting, of course, is a hot subject which the present inflation is putting into sharp focus. We are working on lease accounting. Lease accounting is something on which the APB couldn't reach agreement. It was one of the unfinished pieces of business at the time they went out of business. The Standards Board has come out with its thinking on it, and we're beginning to get what the APB got in its final years—expressions of interest by Members of Congress.

It will be interesting to see how that works out, because Congress of course has great influence, as you know even better than I. If congressional pressure commences and it begins to undermine the work of the Standards Board, it will be difficult for the Standards Board to be successful. We have to keep in mind that the SEC was given statutory authority to establish accounting standards under the Securities Act of 1933, and they've had this authority and responsibility for 40 years. They chose in the beginning, and have maintained a posture over the years, of having the standards established in the private sector, first by the AICPA group and now by the FASB. The SEC has

reserved the right to step in when they think action isn't coming quickly enough, and in theory the Commission has reserved the right to reach a different view. But the SEC is there, and if you get enough congressional criticism that the FASB isn't doing its job, or is setting standards that are going to undermine or hurt the economy at a time when companies are not looking for additional charges to income, it is hard to predict what will happen.

You in GAO live with that pressure all the time; you understand it, you know it—it's a part of your day-to-day environment. We don't really have that environment away from Washington. We don't begin to have a fraction of your understanding of it. But we can see it as a potential problem, like the APB encountered on the investment credit.

I should add that the FASB is not doing much on international accounting standards. That is a wholly different subject. We have multinational companies that are selling securities in Japan, in ordinary times in the States, in Germany, in England, and other places. Each of these countries has its own accounting standards and they are not consistent with those of other countries. If you are going to sell securities in Japan, for example, you've got to have some means of disseminating the financial information on a basis that can be understood by the Japanese buyers. When securities are offered in the States there are different requirements. There is a great need for consistent international accounting standards. Different bodies are now at work trying to bring some conformity into international accounting standards, but it is a very, very difficult and complex subject, as you can imagine. Each country has its own ideas as to what is appropriate. It will be hard to reconcile these but I'm optimistic it will be done in the years ahead. A good start has been made on this.

Going back to the U.S. accounting standards, I hope that the General Accounting Office feels an obligation to contribute input on a regular basis on FASB discussion memoranda and exposure drafts. I call to your attention that the "A" in GAO stands for accounting, and that means you are interested in accounting even though mostly we think about your being auditors. The same thing is true at the American Institute of Certified Public Accountants. We have that same interest there.

Relationship to Cost Accounting Standards Board

Just one passing word on your sister agency, the Cost Accounting Standards Board, which is also headed by Mr. Staats. I have watched the CASB developments with great interest from the time I attended the congressional committee hearings after Admiral Rickover said $2 billion could be saved by the Government each year by establishing cost accounting standards. As far as I know, no one to this day has found out where that $2 billion figure came from, but Admiral Rickover said $2 billion could be saved, so, *ipso facto,* $2 billion could be saved. And that led to the formation of the CASB. I remember very well the testimony of the GAO representative 3 or 4 years ago at the committee hearing. He really tried to hold down on the concept because GAO wasn't certain the concept was sound. But powerful Senators were on the other side. Hence, there now is a Cost Accounting Standards Board.

I think the CASB has approached its task constructively and enthusiastically. They have an organization of about 40 people and I believe they're housed in this building even though they are separately funded. They have a good board and they seem to have a good staff. I believe they are trying to do an excellent job.

There is a risk, of course, which we all recognize, of conflicts in subject material between the Cost Accounting Standards Board and the FASB. Each is dealing with accounting. The way accounting problems break down between financial reporting and cost accounting isn't as neat as different organizations might assume because there are overlaps. The CASB is dealing with pension accounting; the Financial Accounting Standards Board also has pension accounting on its agenda. Depreciation could be on either agenda, and other items could be on either agenda. I believe the key to avoiding duplication of effort, which none of us want to see, and to avoiding confrontations and conflicts between the two organizations goes back to the relationships which exist between Mr. Staats as Chairman of the CASB and Marshall Armstrong as chairman of the Financial Accounting Standards Board. They have a good relationship and each understands the function of the other. They are trying to work cooperatively. And I want to say that Mr. Staats has been a real statesman in his view on this. While he believes the Cost Accounting Standards Board must come to grips with some of these subjects in advance of the time when the FASB can, he has made it clear that the CASB will always be ready to go back and review its position as and when the FASB comes up with a different answer on these subjects. The FASB cannot ask for more than that.

Auditing Developments

Turning now to auditing developments, a subject a little closer to GAO and your day-to-day auditing activities, let me report that the accounting profession has come under considerable attack in recent years. Auditing has always, interestingly, played kind of second fiddle in the activities of the AICPA. The primary emphasis has been on accounting standards, with the Committee on Accounting Procedure and the Accounting Principles Board in the spotlight. We have an auditing committee, but it hasn't gotten the financial support or the attention that the accounting standards group got.

Auditing is not playing second fiddle to accounting principles now for two reasons. First, the AICPA is not officially dealing with accounting principles—the FASB is. Second, auditing is a much more important subject now because of its recognized impact on credible financial statements. I think it is a fine development that GAO's Don Scantlebury is a member of the Auditing Standards Executive Committee. That brings a liaison between GAO and the Auditing Standards Executive Committee, which permits the practice profession to get the impact and the contributions from the very substantial amount of auditing that is done by GAO.

The urgings of an activist SEC, and we do have an activist SEC, the critical writings of a limited number of academicians, the credit crunches, the boom excesses, the big baths that take place, the management frauds that we read about, Equity Funding, *et al.*, have all contributed materially to the flood of litigation and to the careful approach by the profession to try to come to grips with some of these things. There is no question that the auditors are under attack in many ways. As I have watched the Auditing Standards Executive Committee, having in mind my own background in the FASB and the Financial Accounting Foundation, I've become more and more convinced that it isn't really reasonable to expect that a small group of volunteer people, no matter how hard they're working—and the auditing committee is working much harder these days than it did in days gone by—to be able to come to grips with all of these problems.

We're beginning to wonder whether we have to have a separate, full-time group to deal with the auditing problems. If you just stand back and look at the problems and the needs, it is hard to reconcile why we need a full-time FASB, with a staff of 70 people and a budget of $3.5 million to work on accounting principles, and yet we try to handle the difficult auditing problems, which are just as critical, with a volunteer fire department. This matter is under study at the AICPA now and there may be some restructuring.

Commission on Auditors' Responsibilities

The subject also ties into the recent appointment of the so-called Cohen Commission, officially the Commission on Auditors' Responsibilities. The Chairman is Manuel Cohen, a former chairman of the SEC. The Commission has representatives from industry and from accounting practice, and its assignment is to try to come to grips with what I think is a part of the credibility problem, which could be referred to as "the expectations gap." There is no question that, over a long period of years, there has developed a tendency on the part of investors to look for an auditor's opinion. If they find an auditor's opinion, they think it's a "Good Housekeeping seal of approval"—that everything is right all the way down to the pennies that appear in the financial statements. That isn't true, and we probably should have done a more energetic job professionally of seeing to it that people realized it was not that precise a mathematical exercise.

For example, inventory values, the collectibility of receivables, or how you cope with contingent liabilities that arise from lawsuits and a lot of other things essentially boil down to judgment and judgments can be wrong. That has created an expectation gap between the fellow in the street who is looking at the report and thinks it is a precise statement and the fellows who are in practice, who know how this is created, realize it reflects matters of professional judgment. We hope that the work of this commission, which will run for 15 to 18 months, will focus on this and try to come up with a scholarly statement, such as the Wheat Study Group report and the report of the Trueblood Study Group on Objectives of Financial Statements. This should spotlight what reasonable expectations are and what responsibilities should be placed on auditors.

Responsibility for Detecting Fraud

You might want to read, as a part of your focus on auditing, the article "War Over Corporate Fraud" in the November 1974 issue of *Dun's Review*. The subtitle is "Can Investors and the SEC Make Accountants Pay the Bill?" It attracted my attention and I assume it attracted the attention of other CPAs. It is a good subheading because that is one of the major battles that's going on between the accounting profession, regulatory bodies, and the courts. There is a great tendency on the part of many people, including some sophisticated people, to think that if something goes wrong—if you have an Equity Funding débacle—then it must be the responsibility of the auditors because they were there making an audit. This thinking tends to shortchange consideration of the judgment factor that I mentioned earlier.

The profession has maintained for years that practicing CPAs can't be held responsible for the detection of management fraud and extensive collusion. This goes all the way back to the McKesson & Robbins fraud case of 35 years ago. I think the end answer, realistically, in the public interest, is that the responsibility rests some place in between. I don't think the practicing accountant can put his

head in the sand and say, "We have no responsibility for management fraud." On the other hand, I don't think we should be put in the position, if anything goes wrong because of collusion of management, that it's the responsibility of the auditors. I think we can and do catch fraud. I think we could probably catch any fraud of any major size, if we just put enough time on a particular assignment, enough time on an audit. But that, we don't believe, is the appropriate answer, because that would very substantially increase the cost of audits. The cost of audits is not inconsequential now, and to do a great deal more work would raise questions of value received—effectiveness, in the words of GAO. There is a question as to whether it would be a proper expenditure of money to go too far on the remote chance of fraud. There would need to be a compromise on the extent of the work.

Responsibility for Corporate Interim Reports

Accountants are rather careful, rather cautious, and they don't like to be sued. Realistically, we do believe we're working in the public interest, and we are willing to assume additional responsibilities, but we want those responsibilities clearly identified. For example, if we are going to be brought into the quarterly reports of our corporate clients, a favorite topic being kicked around now, then we want to make sure that there are standards that will govern the work that will be done by auditors. We don't want to intentionally or unintentionally mislead investors into believing that they should attach more significance to our involvement in those quarterly reports than is justified by the quantity of work we have done. It isn't that we're lazy and it isn't that we're not willing to work. But there's a great risk that if you begin to attach the name of a well-known accounting firm to the March, June, September reports of a corporation, then the public will feel, "Well, these are more likely to be right." We want to believe that that's true. But the question of how much work we're going to do must be resolved.

We've had a fascinating example recently. The auditing committee of the AICPA has been examining the subject now for quite some time, but hasn't come to its conclusions as yet. The committee is trying to develop the standards that will relate to reviews of interim work, quarterly work.

Recently one of the major firms came out with an elaborate brochure containing that firm's proposals for involvement in corporate quarterly reports. This firm offered its clients a quarterly review. The firm also said what kind of a report they would prepare after that quarterly review. They explained the steps that they would take. They estimate that it would cost 10 to 15 percent of an annual audit fee and they said they're available to take the assignments on even while their brochure is still in the discussion and comment stage.

A few weeks later, another large accounting firm petitioned the SEC to not permit such work to be performed. The petitioning firm said that limited reviews and negative assurance-type reports had many built-in problems which would almost inevitably lead to a lack of understanding by readers. The second firm specifically petitioned the SEC to prohibit the attachment of any type of an independent accounting firm's report to quarterly statements. I use this as an example of differing views by two responsible accounting firms.

Other Audit Responsibilities

To go on beyond the subject of quarterly reviews and think of some of the other responsibilities that are proposed for attachment to the independent audi-

tors—should we be responsible for the propriety of all accounting and statistics included in financial statements? Should we be responsible for the quality and content of press releases issued by a company concerning its business, not just on financial affairs? Should the auditors be required to review press releases before they are issued in order to give them a little more reliability, to deal with insider trading, omissions and misrepresentations in texts of documents released by corporations? Should we be asked to pass judgment on the quality of management's business decisions?

Now GAO should be very interested in some of these because you have moved farther down this pike by far than the accounting profession in public practice has. You are dealing with efficiency, economy, and effectiveness, and I find your work very intriguing. But you've got a different clientele; you're responding in essence to Congress. As a private citizen I think it is fine that you're doing that because we all want efficiency and economy in government. But there's a question as to whether independent accountants are equipped to pass a professional judgment, with all the ramifications of that, on the quality of management's business decisions. Obviously, this is a very complex subject, but it's something that's being thrust at us. It is suggested that we should be responsible for any usurption of corporate opportunity by members of management for their own personal gain. It is suggested that we should have much greater responsibility for discovery of defalcations. It is suggested that we should have responsibility for disclosing information on the quality of a company's earnings and its liquidity.

Now these are all things that may well be in the public interest, and I think that the posture of the profession should be, and is among the thinking members of the profession, that we want to be responsive to the public interest. We want to try to do these things, not because it's work for us because we're all busy, but because we *do* want to be responsive. We're independent. We're objective. We've got integrity. We have training and the education. We know we can enhance the reliability of information disseminated.

But we must insist that we have some published standards so that all of us are working by those standards. We believe it is important to be responsive to the public interest but we also think it is important not to mislead the public by associating our name with information not subjected to predetermined standards with substance.

GAO Audit Standards

Before moving from the auditing section of my comments I do want to refer to what I consider to be the excellent piece of work that's been done by GAO in preparing and publishing its "yellow book" on the standards for audits of governmental organizations, programs, activities, and functions. It is a first-class piece of work, and the audit standard supplement series that have come along after the "yellow book" are major contributions to the literature. These documents are almost guaranteed to improve the quality of auditing of government programs—Federal, State and local. Of course, this was your intent in coming up with the publications.

Also, I have been much impressed with two related aspects of GAO's work. One is the attention you've given to compliance with laws and regulations on the financial end and in financial areas, and the emphasis on efficiency and economy that is stressed in the "yellow book" and in your other publications. I think you're way ahead of the practice profession in your work in effectiveness of program results. I think the profession has

to move down some of those paths. Your pioneering activities will be a great benefit to the accounting profession as they move into these other areas.

The second aspect that has impressed me and should be mentioned is your increasing usage of what you refer to as analytical experts. We have some of that in the accounting profession, but I think once again you've given a great deal more thought to it. I've read some of the written material on this and I would commend GAO on its constructive leadership in this area because it is true that auditing requires the expertise of people who are not necessarily trained accountants or auditors. I might add I've been both impressed and amused with the work of Sam Hughes and his periodical reports on audits of political contributions. In reading and listening to these, I have really come to the conclusion you shouldn't have to pay him—he's having so much fun on that activity.

Relations With the Securities and Exchange Commission

Turning now to relations with the SEC—the profession has come onto a somewhat rough and unpaved section of the road in its relations with the SEC during the past 2 or 3 years. Bear in mind we've had a close relationship with that agency in the 40 years since the 1933 Securities Act.

I would commend to you for reading the December 1974 issue of *Fortune* which has the second part of a two-part series on the SEC. The first part was in the November issue. It's titled "Those Zealous Cops on the Securities Beat." The second article really relates much more to lawyers and accountants than the first article did. If you'll read that article, you'll understand where some of the heat is generated that exists in relations at the present time. There has also been a flood of speeches by SEC representatives, including commissioners—one of whom in particular has given a great many talks—which are undoubtedly intended to be exhortations to lawyers and accountants to be more responsive to the needs of the public interest, to assume more responsibility for management fraud, to do higher quality work.

Part of our problem with this frequent speaking and wide dissemination of these talks by SEC representatives is that we believe this tends to help undermine the credibility of the work of auditors and the credibility and reliability of financial reporting, thereby contributing to such things as the bad state of our capital securities market.

If credibility is to be attacked, I strongly question whether that's the way to attack it. The way to attack it is in discussions with the profession. I think professionals also are irritated by the rapidly growing tendency of the SEC Enforcement Section to use 20/20 hindsight in looking for a scapegoat when something has gone wrong. They are quite willing, almost anxious, to look at the auditors. And as the *Fortune* article points out, there's a widespread use of publicity by the SEC in charging firms or individuals with infractions. You can imagine that professionals such as lawyers and accountants see red when they see those press releases. The SEC says that press releases are a part of their program to encourage professionals to do good work.

The word "fraud" is a misunderstood word. It's a legal word. To the layman, however, it implies that somebody has been caught with his hand in the cookie jar. When somebody reads an article with a flashy, attention-catching heading in the newspaper reading "Accounting Firm Charged with Fraud," it has connotations that we just think are completely

unfair. In the first place, these are assertions and charges to be tried in court, and the publicity should not come first. But you'll find all this in the *Fortune* article.

The SEC does have a difficult task. I wouldn't want you to think that I'm anti-SEC at all. I recognize their problems. They're a government agency. They have the statutory authority. They have their standards. They have authority in connection with the right of accounting firms to practice before them. They have responsibilities. Auditors don't do perfect work. They *do* make mistakes. There always were, and always will be, mistakes in any profession. If you're going to measure a profession against a standard of perfection, you may as well give up now because judgment is the key in professional practice and judgment can't be perfect, particularly with 20/20 hindsight.

We recognize that the SEC is charged with responsibilities; if things go wrong, Congressmen do complain to the SEC as I'm sure they complain to GAO. I'm sure some Congressmen give the SEC a hard time. By and large I believe that the SEC is working hard to do a good job. We are at work now in meetings between the SEC and the accounting profession to try to come to grips with these factors which have brought us on to what I referred to as a somewhat rough and unpaved section of the road in relations between the profession and the SEC. I think we will get these things worked out. In the meantime, the *Fortune* article points out many of the irritations.

The Litigation Problem

Litigation is a subject I've been involved in personally for over 20 years in my own firm, and in the study of it professionally. Litigation did not become a problem for accounting firms until about 1965. It became a problem then as a result of dropoffs in the stock market in the early sixties which in turn did give rise to litigation.

I have concluded that heavy litigation is just a cross that the profession must bear until the number of cases decreases. None of us are reaching for the panic button, even though this is a totally distasteful, irritating, and costly aspect of our practice that we didn't have until a few years ago. I have seen estimates that there may be as many as 500 to 1,000 lawsuits pending against accounting firms, including approximately 200 against the larger firms.

Types of Litigation

In essence, there are four types of litigation: first, the usual civil litigation under the 1933 Act or the 1934 Act, stemming from registration work, prospectuses, *et al.*, either of a class or derivative nature. Class action arises when somebody goes in and sues management, auditors, underwriters, everybody, on behalf of a class consisting of purchasers or sellers of a corporation's stock during some stated period of time. The beneficiaries then are the members of that class if they are successful in prosecuting this action. In a derivative action, the corporation itself is the beneficiary of any recoveries.

Second, there are other civil money damage actions that are not brought under the Securities Act statutes.

Third are the SEC-initiated civil injunction actions—litigation in the true sense. These are noted all the time in the newspapers in connection with brokerage firms, *et al.* There have not been many of them yet involving accounting firms or law firms but there have been a few generally settled by consent decree. Any time these actions are initiated by the SEC, they get the same type of publicity

that I was referring to before—it's a charge of fraud with all of the fanfare that goes with that. In most of these injunction actions, the SEC charges the defendent with failure to comply with the 1934 Act or the 1933 Act and asks the court to instruct the defendent to comply with the law. There is no money penalty in most of these actions.

My firm has been involved in only one of these injunction actions and we refused to consider a consent decree. We are satisfied our work is satisfactory and we expect it to be upheld in court. Time will tell whether we're right or not. In the meantime, we are spending hundreds of thousands of dollars in legal fees and the time of some of our people fighting it. We just believe the SEC is wrong and we believe the SEC is involved in some of the practices that you will find referred to in that December *Fortune* issue.

The fourth type of litigation is the criminal fraud case. There have not been many of these involving accountants. We had the Continental Vending case 5 or 6 years ago involving three people in one of the large accounting firms. In the first trial, the jury was 11 to 1 for acquittal. It was retried, the jury coming in 12 to zero for conviction on the same facts. That case was tried in the Southern District of New York with results that tend to make us worry about trying cases dealing with complex accounting matters before a lay jury. It should not be possible with the same set of facts, to have 11-1 one way and then 12-0 the other way. The conviction was upheld and certiorari was denied by the Supreme Court.

Then we had the Four Seasons case early this year that was tried in Oklahoma City. As a sideline, the attorney who prosecuted for the Government in the Continental Vending case left the Government and went into private practice; the accounting firm used him as its principal attorney in the defense in the Four Seasons case. The commonly rumored legal fees for the firm: $3 million. Two of the three defendents were acquitted at the trial, and there was a hung jury on the third person; I think the report was 10-2 for acquittal. After just dragging from February of this year up to a week or so ago, the Government has now said that there would be no point to retry the case of the third defendant. The judge said that he thought they reached the right answer because they didn't have a chance of getting a conviction.

The most recent fraud case is the National Student Marketing Case in New York where a partner and a former staff man of a third large accounting firm have been convicted in the lower court on a criminal fraud charge. Obviously, it will be appealed.

Frustrations from Fraud Cases

Fraud cases are obviously tremendously disrupting and disturbing to a professional man. Professional accountants try to do good work. They are not trying to defraud people. They are not getting any financial gain out of these cases. Nobody has ever asserted that the CPA received any financial gain whatsoever in any of these three cases. For a professional man to have his judgment decisions questioned in a criminal fraud charge which can lead to prison, fines, and certainly the loss of his CPA certificate—these are hard things for a professional man to contemplate. Whether the SEC is on the right track in this type of endeavor is highly debatable.

The large accounting firms have moved from having no house counsel to having at least one. Some firms have moved from one house counsel to the beginnings of a staff of house counsel. Outside legal fees being incurred by a large firm now run into hundreds of thousands of dollars or more. The time

top partners spend on litigations and all of the irritants and complexities make us hope, as I said earlier, that it is just a phase that the profession is going through, and we have to fight it. We decided at Arthur Young some time ago that we weren't going to be blackmailed into settlements. There is an element of the bar that feeds on strike actions, thinking up charges without doing their homework, naming everybody they can name as defendants, and being, I think it's fair to say, primarily interested in their fees.

I noticed a settlement in today's paper —a data processing and financial corporation settlement of $2,800,000 in a class action in New York; fees for the attorneys representing the plaintiff were $700,000. That's not out of line with usual allocations and sometimes it's a higher percentage. I once let my irritation get away with me when, in talking with a reporter, I said we have to recognize, in connection with the problems of litigation, that there is an element of the bar that makes the old-time ambulance-chasing lawyer look like a choir boy. A couple of days after that, an irritated member of the bar called our legal counsel. He said he had read this article and was shocked by it. He also said that it was libelous and if I didn't retract the statement, he was going to file suit against me for X million dollars. It so happens that our legal counsel are fighters, too, and their immediate response in that same telephone conversation was, "Fine, we'll be glad to accept service, we'll be glad to defend Mr. Kent, and one of the bases for our defense will be truth."

The thing that needs to emerge in connection with litigation is the identification of the standards to which the professional man is to be held. Is he to be held to compliance with the standards of his profession, the output of the auditing committee of the AICPA, the output of the FASB, the output of the APB? If we comply with those standards, are they the standards by which we should be measured? We think they are because if you don't accept them then we're put in the position where we're going to be measured on a hindsight basis in a courtroom by a lay jury that doesn't understand, and there's no way we can anticipate what their standards will be.

That is what happened in the Continental Vending case. There were eight expert witnesses who testified for the defendants in that case that the procedures which had been followed by the accounting firm were the standards of the profession. Defense counsel requested the judge to charge the jury that compliance with the professional standards is a total defense. The judge came within a whisper of doing that, but he put in just enough additionl words so that they could go out on their own interpretation as to what the obligations of the auditors were. We have to get that straightened away and the court decisions that have been coming down are coming down both ways—some important decisions say compliance with professional standards is a total defense; others are saying that there are yet unspecified standards.

Insurance Protection

We have heavy financial responsibilities under the 1933 Act. Every accounting firm is insured, but that isn't enough either because bad experience can drive the underwriters completely out of the line. There are at least six to eight large insurance companies in the United States that at one time or another have offered accountants' malpractice insurance but have now gotten out of the line. They don't really understand it, they're afraid of it when they read in the papers that an accounting firm has been sued for $50 million or $100 million or maybe $200 million. That scares the insurance

companies and they decide that they don't need to take risks like that.

Available insurance has also been curtailed by the tremendous decrease in the value of investment portfolios. This has an impact on how much premiums they can write. As an insurance company raises the rates for the insurance—I think, for example, we're paying 20 times the rate for malpractice insurance that we paid 6 or 8 years ago—you get the double-barreled effect that as the premiums go up because of underwriting losses and the base of premiums which can be written goes down due to portfolio losses, there is a serious compression in the amount of available insurance.

Most of the major firms—all of the major accounting firms, for example, and all of the major law firms—are insured through Lloyd's of London. But you know there's nothing in the Book of Revelations that says Lloyd's has to stay in this line either, and if they're not going to make money they could always quit, too. There is some constructive action under way. There is a pending proposal to limit the liability exposure of a professional man but it will be several years, if ever, before this is enacted into law.

Conclusion

To sum up, I think that the accounting firms are fighting and that they will live through this period. It's a frustrating period but some good will come out of it. Good comes out of almost anything. It will force accounting firms to be even more careful, and that enhances the reliability of what we are doing. Steps are being taken professionally to provide for independent reviews of the quality of the work of professional firms. All of us have been doing it internally for years, and now we're moving into the period—in part because of pressure by the SEC but in part because of the litigation—of having independent reviews by other firms and other professional people on a post-issuance basis.

In closing these formal remarks I just want to say that the public-practice profession has grown very rapidly in the sixties and the seventies. We try to be responsive to the public interest, just as I think you try to be responsive to the desires of Congress. The profession is strong. The winds of change are always blowing—not just now but always and we must adjust to those changes.

It seems to me that GAO has grown tremendously in stature and confidence during the last 10 or 15 years. From what I observe, you're doing a fine job. I say that both as a CPA in public practice, now having had a chance to learn more about GAO, and also as a taxpaying citizen. I like your objectives. I hope our two sectors can work together cooperatively as they have in the past, but on a much more extensive basis in the years ahead.

DISCUSSION

In these days of double digit inflation, shouldn't we be leaning towards current price level financial statements?

Mr. Kent: I think we should. The subject has been under study by the AICPA for 25 years. The first study, the Jones study, was in 1947, I believe. The reason why we haven't come to grips with it before this is because we haven't had high inflation in the United States until this year. As I've said in many talks, if we had the amount of inflation in the States that there has been in Brazil and Argentina—as high as 100 percent a year—we automatically would cut out the debating and you would get price level statements. With 10 to 12 percent inflation, I think we do have to do something.

I was intrigued with the editorial in the current *Business Week* written by Sandy Burton, the chief accountant of the SEC. To my great surprise, he was talking down the concept of price level adjusted statements. He questioned whether they were the right answer, whether they would do the job. He referred to it as PuPu accounting.

The FASB will be issuing something on this in the very near future. I don't know what they will say but I can speculate that they will require experimental price level adjusted statements beginning very quickly. After the bugs have been worked out by a broad experimentation process—that means implementation by individual companies—I would speculate that adjusted statements would become mandatory. I personally think it's much more the answer to any inflation in profits than switching to LIFO accounting. I'm not a believer in LIFO accounting for most companies. It's a miscarriage of accounting justice, and though it serves a useful purpose on cash flow, I think price level statements would have taken out the inflationary profits in a much more meaningful way than switching to LIFO accounting.

What type of contract approach do you think should be put into a contract when a government agency is interested in having help from a CPA firm?

Mr. Kent: I think your standards—your "yellow book"—is a major contribution in that respect to an understanding of what you want done at the Federal, State, or local level. I think the elaboration of your "yellow book" by the material distributed to AICPA members spells out the things that should be put into contracts if you will, and the type of responsibilities that should be taken on by the independent CPAs. These publications are not conflicting—they're complementary—yours to the Government agencies, Federal, State, and local; the AICPA publication to the practicing CPAs. And I think the essential requirement is that the audit first be made in accordance with generally accepted accounting principles and in accordance with accepted auditing standards. After that there should be added any additional things that you want specifically looked into.

Would you encourage CPAs to render their services in the public interest to organizations that aren't able to pay for that service? Would you encourage this in general as well as in your own firm?

Mr. Kent: I think steps have been taken on this. They were slow in coming; they do exist. There is a national organization that got its start out in San Francisco for this very purpose, and it's now come to the East and to New York. I would encourage it for several reasons but whether I would or not doesn't really matter because many of our younger people at Arthur Young, and I'm sure this is true in other firms, are actively involved in such work. Our tax people, for example, our younger tax people in New York, completely on their own, went up to Harlem on a scheduled basis and helped the people up there with their tax returns. And I'm sure people in other firms are doing that same thing.

It's a natural desire that's emerged with younger people in recent years to make their contributions in that regard. People in our San Francisco office undertook things like that six or seven years ago, and they did it on their own time, by and large. Now if you measure that against the potential market, it's a small contribution. I sense that lawyers may be moving away from this a little bit. They were into it deeper, and I think some of the young lawyers that were doing this are pulling back a little bit. They're still involved but I sense that they may have

peaked and are cutting back. I don't know why unless it is the frustrations. It's a part of public service—something like free medical service a doctor does for a patient that can't pay.

From the view of the public accounting firm, do you see any problems in broadening the scope of GAO activities?

Mr. Kent: Yes, I see some of the problems that the supervisory level of GAO must see in the objectives that they have when it comes to economy and efficiency.

As I think about trying to appraise management's efficiency, the wisdom of business judgments, and the problems that we can all see in them and as I think of the emphasis you place on effectiveness—which I think is great as a taxpayer—it seems there must be many implementation frustrations as you struggle to get the results into your reports in a meaningful, clearly understandable way. I notice that in the standards that are laid out in your "yellow book" for work by independent accountants, you do not expect the independent auditor to pass judgment or form a professional opinion on these items. I suspect that this is because you recognize the problems in the emerging process yourself. Five or ten years from now I think you will certainly be a lot smarter and those of us in practice will have learned even more because we start from a lower base of knowledge on how to cope with this. You are doing the pioneering and we will learn from your experience.

You mentioned conflicts of interest. What might the role of the public auditor be where conflicts are perceived that might be against the public interest?

Mr. Kent: We have had cases where, as auditors of two unrelated companies, we find—I don't want to say stumble on, but sometimes we do stumble on—something that is going on that shouldn't be in one company and has an adverse impact on the other client. We have the very difficult ethical problem of what we can do with that information. We obviously don't approve but our rules of ethics require us to protect the confidentiality of the information we get from any client. We can't go to the other client and say, "Look at what Joe Jones is selling your company or the price you're paying for the merchandise you're buying from him because it's above the market." We can't do that. So we do our work in a different way.

We will initiate our own special investigations, if you will, in a second company—the purchasing function, who they're buying from, what prices they're paying, whether they're getting competitive bids. We'll write suggestion letters to the company and say we think there are some weaknesses in the purchasing functions, and that the company should reexamine and tighten its controls.

A matter of current interest is political contributions. I don't think that as outside auditors we can be expected to detect political contributions. If somebody sets out to bury $5,000 or $10,000 or $100,000 in a company that's doing business in the billions of dollars on an international basis, as some of the companies are, there isn't much likelihood that we would learn about the contributions in the type of audit that's performed by independent public accountants. If we do catch it—and we do find things like sales commissions and fees being paid—we do take action. We are heavily in support of the concept of having audit committees on boards of directors comprised of non-officer members of the board. We believe in close relationships between the outside auditors and those

audit committees. We have referred some very difficult matters to audit committees. There isn't any real point in our telling inside management if they are the ones who approved them. If you get responsible outside board members on the audit committee, they should be told. We feel that we have discharged our responsibility by disclosing that to the board representing a level where something can be done. We're not prosecutors.

Objectives of GAO

Mr. President, on June 21, I introduced on behalf of myself and Senators Ribicoff and Metcalf, the Accounting and Auditing Act of 1973. This bill is designed to strengthen and update the authority and functions of the General Accounting Office in order that it may more effectively carry out its statutory responsibilities.

The General Accounting Office is the agency of the Congress and serves as an important source of information on Federal Government operations for all Members of Congress. Recently the Comptroller General published a new booklet on his office, which provides answers to numerous questions that are frequently asked about the objectives, purposes, and responsibilities of the GAO. This excellent booklet, which is available to all Members of Congress, and publicly available to students, libraries, and members of the public for their use and information, also contains a fine summary statement of the objectives of the General Accounting Office prepared by the Comptroller General.

Senator Sam J. Ervin, Jr.
Congressional Record
July 12, 1973

C. Jackson Grayson, Jr.
Dean, School of Business Administration, Southern Methodist University

Academician, consultant, businessman, and former head of an organization with control over most of our nation's price system—these terms describe the career of Dr. C. Jackson Grayson, Jr. Currently serving as Dean of the School of Business Administration, Southern Methodist University, Dr. Grayson was Chairman of the Price Commission during Phase II of the Economic Stabilization Program and is well-known for his expertise in the field of productivity.

Dr. Grayson joined the staff of the School of Business Administration of Tulane University in 1947 after receiving a B.B.A. degree from Tulane University and an M.B.A. degree from the University of Pennsylvania. Since 1953 he has taught at the Schools of Business Administration of Tulane, Harvard, and Stanford Universities, as well as overseas in France and Switzerland. In 1963 Dr. Grayson was appointed Dean of the School of Business Administration at Tulane University, a post he held until 1968 when he assumed his present position with Southern Methodist University.

In 1971 President Nixon designated him as Chairman of the newly-formed Price Commission where he was responsible for creating a program to control prices in the country's trillion-dollar economy. He headed the Price Commission until its abolishment in 1973 and then became Counselor to the Chairman of the Cost of Living Council.

Dr. Grayson is a member of the American Accounting Association, American Finance Association, Operations Research Society, The Institute of Management Science, Society of CPAs of Louisiana, and The World Future Society.

The author of several books and numerous articles, Dr. Grayson has frequently focused on the topics of productivity and inflation in his writings. His most recent book, Confessions of a Price Controller, *was published in May 1974 by Dow Jones-Irwin, Inc.*

Our guest today is Dr. C. Jackson Grayson, Jr., the Dean of the School of Business Administration of Southern Methodist University in Dallas, Texas, and former Chairman of the Price Commission. I should add that, prior to his appointment to the Price Commission, he was a member of GAO's educator consultant panel, which has been so helpful to us over the years in the recruiting and development of our professional staff.

Dr. Grayson's presentation is entitled "Productivity, Inflation and Education" and I think you'll see the thread of relevant interest in all three of these points. I think you will also agree that these three words are relevant to us in GAO, both professionally as well as personally. During the past several years, GAO, in conjunction with the Office of Management and Budget and the Civil Service Commission, has been studying productivity as it relates to the public sector. This work is now being carried forward through the Joint Financial Management Improvement Program, which is reviewing ways of further improving productivity indices in the Federal sector and the uses of productivity measures for improved management and investment decisionmaking.

Dr. Grayson has been an eloquent spokesman on the need for improved productivity in the private sector as one way of achieving price stability and maintaining the competitive position of the United States in the world economy.

Of course, inflation is a constant concern to all of us. It is a factor when we are auditing large procurement programs and reporting on cost growth as well as in what we pay at the grocery counter.

Lastly, education is a key factor in the success of GAO's efforts. Since we are continually recruiting staff we must keep constantly aware of changing trends and education and we need to know what type of education preparation is most appropriate for the young people entering the Federal service. The mix of educational backgrounds has been expanding in GAO during the past several years and what we are, of course, always considering is what the outlook is for the future.

There are few people more qualified to discuss these three topics than Dr. Grayson, who has had a varied and dynamic career. He has held positions of responsibility in educational institutions and in the private sector. He has served as a consultant to a number of organizations, including the GAO.

—Comptroller General

Productivity, Inflation, and Education

Dr. C. Jackson Grayson, Jr.

One of the things I'd like to do first is relieve your tendency to take notes and to write down what I'm going to say productivity *is*.

I do not know a good definition of productivity that will satisfy a broad spectrum of society. I have tried for years to come up with a definition that would satisfy or explain productivity to different people. I have not to this date been able to write down one that would be acceptable to businessmen, labor, government, economists, and all others. I have simply stopped trying to find a good understandable definition. If I asked each one of you to give me a definition, each definition would probably be different and that's good enough for me so long as we are headed in the same direction. That's a very important outcome.

In preparation for today's presentation I looked back at notes that I used when I was Chairman of the Price Commission. In every single talk but one, I mentioned *productivity* as being ultra-important, because I knew that all the Price Commission could do was to treat the symptoms of the problem. We could not go to the fundamentals. And one of the fundamentals in fighting inflation is productivity.

I compare productivity to what I heard someone describe as the Loch Ness monster. Everybody has heard about it, a few people claim to have seen it, but nobody has yet run it to ground. Today, I'd like to talk about why I think it is important and why I think it is a problem and an opportunity.

Why Productivity Is Important

First, it is important because we have frightening *inflation*. Inflation is the number one problem in our society. It is the number one problem in the world.

If you look at the inflation rates around the world, they are frightening. If you saw the inflation map in the *New York Times'* business section about 2 weeks ago, I think the numbers would astound you. There are only a very few nations left in the world of any industrial significance to have single-number inflation rates. Most every nation is in the two-digit category. There is one with three-digit inflation. It is Chile, with 709%. We have already seen what it has done to the Chilean government and they are still facing raging inflation.

If you think what raging inflation will do to our societies, economically, socially, and politically, the results are frightening. It tears not just at the economic fabric, but it will soon penetrate the social and political fabric of a nation. We see one nation right now where inflation is one of the major ingredients of social and political unrest—Britain.

The second reason for the importance we should give to productivity is the *socioeconomic* progress that this nation

has committed itself to. We have a fantastic set of expectations in this nation, and in the world, about what we want to achieve socially. We want to help minority groups, to improve the environment, to improve the educational level, to increase health care, and so on. If we do not deliver, there is a danger that we will have social unrest increasing. It is clear that we have to scale back on our social demands or increase productivity, or some combination of those. You cannot deliver more than you have.

I hadn't realized until just now that the acronym for the title of this talk on productivity, inflation and education is PIE. That's very *apropos*. We can't deliver more social benefits to this nation than the size of the pie, and the pie is determined by productivity.

The instruments that we work with in economic policy, such as the fiscal and monetary controls, are nothing but transmission belts. The fundamental causes are back at the individual level. So, until we tackle expectations and do something about them, we are endangered in being able to go ahead in an orderly way.

The third reason for productivity improvement is *world competitiveness*. Our productivity relative to other nations has dropped in recent years. In today's *Washington Post* are some figures giving you the productivity figures in this nation in the past year and other nations of the world. We are still the most productive nation in the world, but our rate of productivity *increase* in recent years has been dropping.

There are some people who feel that this drop is just temporary. But we have not recovered the rate of increases which we have had in years past, and that should be an alarm signal to us in world competitiveness.

The fourth stimulus for productivity increases is *shrinking natural resources* of the world. Given that we begin to see some kinds of limits to the ability to have all the physical resources we want, then we had better learn to be "more productive" with those resources. That implies actions by producers and consumers to use those resources wisely (productively). The biggest example at the top of the news is that of energy. But you can extend that example to other resources—food, metals, chemicals, etc. With these shortages that are beginning to appear, we had better focus more on the supply side and not only on the Keynesian prescription for pushing up the consumption on the demand side.

The fifth reason is the *employment commitment* which this nation made with the Employment Act of 1946. The words were "maximum employment," and we are still arguing what the word maximum means. Does it mean 3%, 4%, 5%? But given that this nation now has an expectation that unemployment will not be "very high," we have made a social commitment that we will not permit very high rates of unemployment even if we have to manufacture jobs. There is an economic corollary: we had better work on ways to make those that are employed very productive because, if we don't, the result will be inflation.

Next on my list is the well-known shift to more of a *service economy* in this nation. We have had the greatest productivity gains in agriculture and in the manufacturing sector, but we are now shifting more into the service sector where the productivity record has been historically low relative to the other sectors. I don't accept that we have to live with that situation for the future. I think we have a tremendous opportunity for productivity increases in the service sector, with government being one of the biggest components and thereby having one of the greatest opportunities.

Last on my list is the danger of re-

starting a wage-price spiral and ending up with a repeat of *wage-price controls.* The stage is being set as wages chase prices. Prices are going up dramatically. Naturally you want your wages to go up to be able to offset those prices. I do too. But if we don't have the productivity going with it, then you will get more inflation and you'll be off chasing ever-elusive prices.

If you don't see wages going down, then you've got to get productivity climbing up. If not, we get inflation and the possibility of a public turning wearily to controls as a desperate way out.

How We Can Improve Productivity

I'd like to shift now from why it is important to *how* can we work on productivity in this country.

Why is increasing productivity such a difficult thing? One block is the word "productivity" itself and the meaning that it has for different people. There are an awful lot of people in this nation who think that "productivity" is a bad word. It is not something they want to increase. The Harris polls and the Gallup polls generally show that people believe that productivity means that "business gets theirs, that is, profits go up" and that it also means "faster and harder work for which I don't get compensated."

If you haven't checked that word out with some people, do so. The number of people who do not think productivity should increase will surprise you. If you talk to them, however, about what the word implies, then generally they will go along. It's the word itself that is blocking—not the concept but the word. If you can come up with a different word, I would love to have it—I'd like to use it.

Next is the *measurement* problem. This is one of the reasons why I think we are having difficulties moving ahead rapidly. How do you measure productivity? It's a lot easier to measure when you are talking about numbers of standard physical units that flow off an assembly line.

The standard definition of productivity is "output per man-hour." Even that one has tremendous holes in it. What is "output?" How do you measure the output of a fiddler, a teacher? How do you measure the output of a doctor? I once talked to a physician about increasing the productivity of doctors and he said immediately, "What do you want me to do? Slice faster? On you?" If the output involves "quality," how do you measure it? Something is "better" than it was before. But how do you measure "better?" The Bureau of Labor Statistics knows this problem in spades.

When I was with the Price Commission we required that companies offset their requested price cost increases with productivity offsets. Every time we asked for a number we got back generally a mess. The companies confessed that they did not know how to measure productivity very precisely—that the figures they were using were very rough and imprecise but they were the best that they had. That was true.

We've got to improve on that, particularly as we shift more into the service sector. Just as I couldn't give you a good, universal *definition* of productivity, neither can I give you a good universal *measure* of productivity. I don't think that it can be a universal formula or definition. It's going to be different for different sectors of the government. It's going to be different for different sectors of business, and for different sectors of the nonprofit organizations.

Leaving behind the definitions and measurement problems, how can we do something about improving produc-

tivity? I think you can tackle it on three levels.

First, you can deal with the manifestations of it; that is, the outward appearances of it. Here I'm talking about the direct factors of costs, prices, plant layout, distribution, work arrangement, waste, spoilage, etc. You tackle it where it shows.

Secondly, you can move away from the outward manifestations toward the intangible. You can work on the institutions, the structures that influence productivity. One example is organizational structures. This is an area that we haven't talked about much in terms of productivity. But how people organize themselves influences productivity very much. We need to think about new and different ways of organizing, and other methods as we move into the service sector. Other methods would be regulations, laws, and institutional structures.

Importance of the Individual

The third area to tackle productivity is at the level of the individual—you and me—in which you look at productivity in terms of individual values, aspirations, our sense of responsibility, our sense of achievement—what it is that we do and what we want to do. That's the most fundamental level. To me that's the most exciting of all of them. You can work all you want with the end product of the assembly line or work on your organization structures all day, but if you don't have people going with you, all of the rest will be washed aside.

There is a company in Dallas, Texas Instruments, that has a phrase that I like. They say "assets make things possible, but people make them happen." If you don't have people working with you, assets don't make any difference. If you have people but they don't have the tools to work with, people can't be effective. It's senseless to keep arguing about whether or not it is capital or people that produces the most productivity. For purposes of productivity, it is wasted effort to argue as to who does the most. Both benefit.

We need a national educational effort to help people understand that so that we can secure individual effort and cooperation. If we don't get people to understand and commit themselves to the productivity notion, then it won't work. It simply won't work.

I can invent all the beautiful schemes in the world. The industrial engineers can design and redesign work processes. A manager can do everything in the world to design and redesign the organization structure. You can use the carrot. You can use the stick. You can use psychological tools. None of them will work if the individual doesn't believe that what he is doing is important for him and for his society around him. That may sound platitudinous, but from all of my life's experiences, I think the greatest potential exists at the individual level to increase the level of productivity.

Remember that I have said that is not *only* people. You need to examine tax laws, fiscal and monetary policies, regulatory practices, etc. All of those are also important to get the right tools available for people. But we've spent too much time worrying about these aspects and not enough about the individual and what affects him. That's easier said than done because of the difficulty of explaining its importance to people.

How do you go around and tell people productivity is important, and it's good for the country and for you? Try it out on one of your friends at a cocktail party. They'll look at you oddly and they'll say, "What do you mean?" You may find yourself in a lot of arguments about productivity meaning "more pollution,

working harder" and so on. But we must do something about getting people to understand.

This is one of the reasons why I have urged that there be created an American Productivity Center. This would be a private-sector institution to help this country become more aware of productivity; that is, the importance of it, what it's about, and how we can go about actually doing something as individuals to stimulate it.

I do not suggest that this be the only place where productivity improvement programs be initiated. It is ultra important that efforts also be made in the public sector. The public sector National Commission on Productivity, which had a rough life, was killed and has been recently revived. That's one effort I believe should be kept going.

Another is the productivity improvement program, conducted by GAO, the Civil Service Commission, and OMB to look at productivity in the Federal sector and to work on ways to stimulate it and unblock it. The public sector should take some leadership to show the private sector what can be done, and to stress to the private sector the importance of productivity improvement.

Productivity Centers in Other Nations

Before discussing the proposed structure of an American Productivity Center, let us take a look at what other nations are doing. We still are the most productive nation but, Japan, Germany, and Israel in particular have active productivity centers and other Asian and European nations also have them. They cover all factors affecting productivity growth: education, research on new techniques, consulting, and information.

The Japan Productivity Center is one of the most active. It was founded in 1955 with the assistance of the United States and a grant of $6.2 million. We set them up to increase their productivity and they ended up beating our pants off in many areas. The Japan Center has a staff of 300 people, with headquarters in Tokyo, 9 regional centers, and 5 international offices, one of which is right here in Washington.

It is largely a center for management education both for business and labor, sort of a combination of an American Management Association, the Conference Board, The National Commission on Productivity, and a school of business administration. Its central purpose is to promote productivity, working with Japanese business and labor. One of its activities is sponsoring management exchanges between Japan and the United States. When you see Japanese flowing through and into and around this nation, a lot of them are sent by or sponsored by the Japan Productivity Center. About 12,000 of them have come over under the auspices of the Center. They have a Labor College and a labor-management consulting function, which is a consulting relationship with industry and labor.

They have a budget of $8 million annually. Their revenues are derived from membership fees (7%) and from services rendered (93%). In other words, they are self-sustaining. They do not receive government funds. But the government does contract for some services, that is, courses for government employees. They sell some publications and films.

Israel has an Institute of Technology founded in 1961, a budget of $4 to $5 million, a staff of 230, headquarters in Tel Aviv, and suboffices in other cities. The government originally financed it, but I don't know the exact sources of revenues today. It does receive sizable proportions from membership fees, keyed to the number of employees—$15 to $1,000 dollar memberships. It has a board of directors from all sectors of the

economy and labor participates very strongly. The functions are somewhat similar to Japan, with public awareness being one of their main responsibilities. They offer a variety of courses, they undertake some research themselves, they have a national productivity week, and they have a computer center.

In Germany they have a productivity center, with the acronym RKW. They provide individual firms with information and advice about productivity, mergers, manpower. They give advice, issue productivity alerts, and suggest ways in which firms can increase productivity. They do research, provide training for industrial advisors, disseminate information, hold training seminars, offer office and plant courses, and sponsor missions abroad.

Their budget was $6 million in 1971, with 60 percent from the government, 30 percent from industry, and 8 percent from the state. They have a staff of 150 and a managing board of 65, who are elected and represent various interests. There are two joint managing directors, one from the industry and one from the union side. It was first established in 1921, reconstituted in 1951. There are 11 regional centers scattered across Germany.

Without going into details here is a partial list of some of the productivity centers in other nations: Belgium, Czechoslovakia, Denmark, France, Greece, Hungary, Iceland, Ireland, Italy, Luxemburg. A lot of these came out of the Marshall plan when we urged them to set up productivity centers of this sort. Some have flourished and some have not done so well.

Needed—An American Productivity Center

The purpose of reviewing these centers is to show that many other nations have large-scale productivity centers in operation. But we don't. We do not have a national productivity center outside of the National Commission on Productivity, whose budget is very small. It is about $2.5 million, and its life is very tenuous.

I think we need a formal productivity center in the private sector in the United States. It would be a symbol of the fact that we do recognize the importance of productivity and that it could provide substantial help. *I think business and labor should financially support it to get it started.* It would be nice to have the Center dedicated at the time of the Bicentennial.

Productivity brought this nation this far. For 200 years we have been one of the most productive nations in the world. If we can get a recommitment to productivity of this magnitude, I think we can go forward confidently for the next 200 years. And I would like to see business and labor make that statement and that commitment to this nation.

The proposed Center wouldn't duplicate other efforts, it would be a focused effort, it would involve both capital and human productivity, it would be dedicated to the future, and it would not be a think tank.

It would work in capital and human productivity to do six things. Number one is *education*—make people aware of the importance of productivity so that they can do something about it. Second, there would be *research and development* to work on the messy problems of productivity measurements. We would have studies, case histories from all over the world, such as the interesting experiments being conducted in job enlargement in some European plants. Demonstration projects would be encouraged and publicized.

Third, on the *human* side, there would be studies pertaining to quality of

work, job enrichment, job redesign, work team development, flexible working hours. There would be labor-management conferences, which are held often in Japan.

Fourth, on the *capital* side, there would be work on measuring production investments, tax considerations, stimulating research and development, government liaison, competitiveness, and capital regeneration. That's a particularly important problem today when our books do not reflect inflation and the need to replace capital.

The fifth function would be *productivity auditing*—going out and making an audit of how we're doing nationally. I'm not talking about auditing individual firms, but giving an annual report on how this nation is moving along on productivity in all dimensions.

Training would be the sixth function —working on programs to turn out productivity specialists, holding productivity seminars, and arranging visits back and forth between nations.

What would be the cost and the effort? The first year would cost about $300 thousand, and the needs would grow to $12 to $14 million annually at full operation. It should be financially self-sustaining after 5 years, or fold up. That means an initial underwriting of $26 million. But I hate to think of initiating institutions that don't have to pass the market test in the private sector. So if they can't find their own funds after 5 years to support themselves, they ought to go out of business. Japan has proved they can.

A new building would cost about $4 million, but perhaps we could find one that's already built that would be suitable.

It would have 400 to 500 people in it, the highest caliber staff, and no government support in the beginning except for contract work.

It needs moral support from key business and labor leaders. It needs funding. It needs an initial set of leaders and a steering committee to get it off the ground. The completion schedule should be July 1976, in time for the Bicentennial.

I even have a dream in one of my fantasy moments of a "Declaration of Interdependence," signed on July 4, 1976, by 56 people, the same number who signed the Declaration of Independence. They would now sign a Declaration of Interdependence when we dedicate The American Productivity Center.

It's a tight schedule and the schedule is getting tighter all the time. I have talked to some business leaders and some labor leaders about this, and they will all say, "Yes, that's important. I hope somebody will do it." I've called this the "Little Red Hen Phenomena." Everybody would love to have the Center in operation and when it gets built, "Would you please let me know?" But I have not found anyone yet willing to step up and help to launch this with funds and direct support.

Labor leaders are concerned about the word "productivity" and what that means to average workers who say productivity means sweat, speed up, and a loss. Business worries about whether or not labor will come along and whether or not it's going to succeed. So far, they don't want to come in until it's successful. Everybody is for it. But the Center is not there. And it should be.

In summary, I think productivity is extremely important. All of those problems I mentioned in the beginning—inflation, social expectations, the world competitive race, the scarcity of raw materials, a service economy, etc.—they aren't going to go away. I also have a very basic reason. I believe that a more productive individual is a person that is

happier because he is contributing something to this society.

DISCUSSION

Do you have any suggestions for how government groups could help contribute towards making your dream to develop an American Productivity Center a reality?

Dr. Grayson: No, I don't have an answer as to how you can directly help. This should be a private sector activity. Some people in the government can help to stimulate the private sector by repeating its importance to labor and business leaders. Also, what you are doing in GAO in the way of getting performance out of the system in many dimensions is important for productivity. So you're contributing to productivity by your work in GAO.

But to get that Center started I don't know what you can do individually—except cheer me on.

As I understand the definition of productivity, it is mechanization of labor and as a result of this mechanization usually this involves dehumanization of human labor, turning people into a robot society. What can we do about that?

Dr. Grayson: The earlier practices of productivity improvement were sometimes dehumanizing, replacing manual labor with machines. In many cases that led to the stereotype assembly line process, symbolized by Charlie Chaplin in the film, "Modern Times." People have and still are rebelling against making man a machine. That is degrading. And it is one of the reasons a lot of people do not like the word "productivity." They still see it as job displacement or making the human being into nothing more than a robot. And if that were true I would be against productivity.

I submit that is *not* what productivity is. It is not making man into a machine. It is *releasing* the individual to be more of a human being in every dimension. When you do that, I think you will unleash a fantastic economic outpouring as well. It's what Peter Drucker has called "the knowledge society"—releasing people to use what we as higher order human beings have—a brain. And if you've read Studs Terkel's recent book, *Working,* you will see how much human beings resent being treated as depersonalized machines. That's why education is so important—to try and release productivity from the fetters of an unfortunate definition.

To give an illustration of what I mean, look at the work that's going on in the Volvo plant. People there don't do the same work repeatedly, over and over. There are other ways to use assembly line economies of scale without having to have the same individual turn the same screw "x" thousand of times per day. It involves job redesign and enlargement, the team concept. I've seen it work, right here in the United States and in factories. It does not lead necessarily to repetitive, constant, boring application of a muscle, even in the most highly automated industries. Texas Instruments of Dallas has one of the highest productivity gains in the nation in the production of very precise items —semiconductors, transistors, integrated circuits. Individuals at TI don't have a negative attitude toward their work because they have a lot to say about how they do their work. They've come up with very productive schemes that could have never been dreamed of by an industrial engineer. Those that have said that productivity necessarily means a boring assembly line are not correct.

Does the process of education involve trying to change the traditional American notion in industry of adversary re-

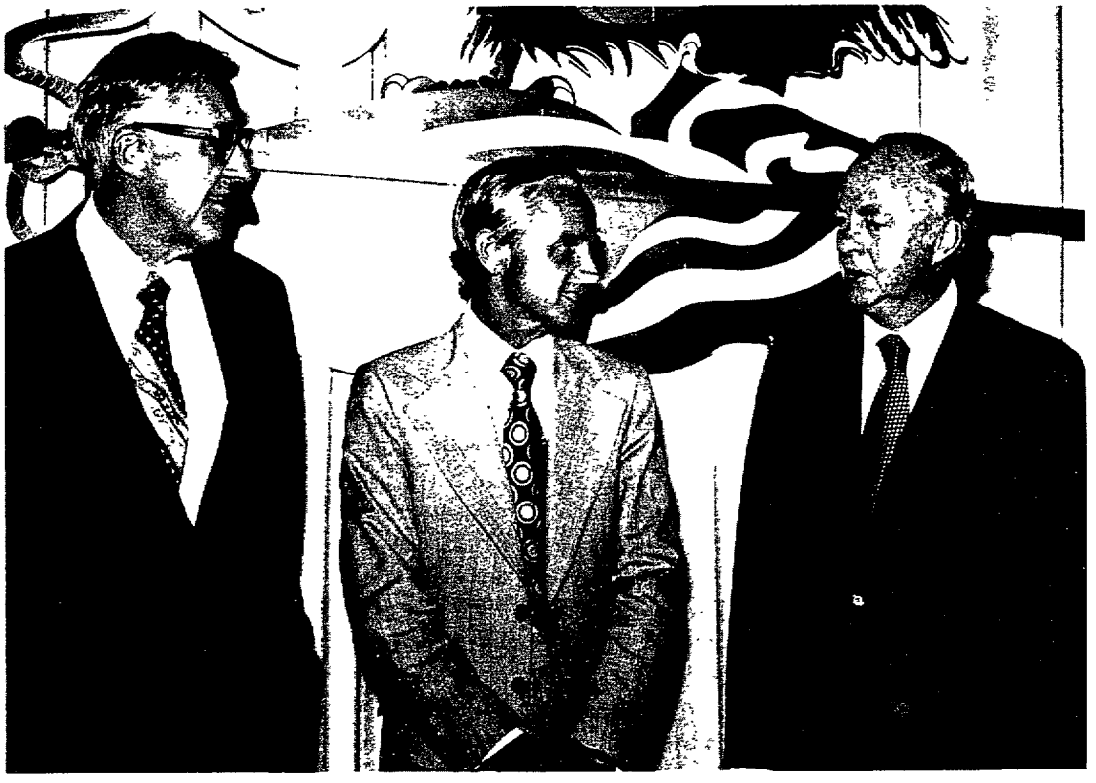
lationship between labor and management to something more like the Japanese system where there is less of an adversary relationship between the two groups?

Dr. Grayson: Japan *has* achieved a lot. They've pulled off an economic miracle. So has Germany. They have done it with a different set of systems between management and labor. Lifetime employment—different kinds of ethics about work—different superior-subordinate relationships.

I don't think their system can be adapted exactly to fit the American system. Theirs is a different society, a different culture, different backgrounds. Their model fits their particular system at that point in history. In fact, the Japanese system is changing even now. You have a lot of unrest on the part of young people who don't like that kind of system. I won't go into it, but they aren't going necessarily to stay where they are with their present system.

We started with a slightly different relationship between labor and management, which in recent years has grown to be more of an adversary relationship. I support the idea of collective bargaining to decide how the profits are going to be divided. There's always going to be an argument between the necessity of the wage fund and the capital fund. And that argument should be supported vigorously by its proponents.

Where I have difficulty in supporting any adversary relationship is when people argue about steps that would increase the size of the pie to be divided. There the adversary relationship is destructive, and it *has* deteriorated into



Dr. C. Jackson Grayson, Jr., of Southern Methodist University, GAO lecturer on July 12, 1974, with Elmer B. Staats, Comptroller General and, on left, Phillip S. Hughes, Assistant Comptroller General.

those kinds of relationships in many companies and unions today. When that happens, that is a decrement to productivity—restrictive work rules, jurisdictional disputes, management preserving unto itself too much autonomy so that they do not give the individual worker some job design and control of what he's doing. You'll be arguing over a disappearing pie because you won't be productive. You'll be arguing over a decreasing percentage of the thing to be divided.

I don't think we will ever adopt the Japanese system entirely, but we can learn from them. Our system can work well if we'll change the emphasis of the argument between labor and management to one of increasing productivity instead of only talking about how to divide up what is shrinking.

You have given a very convincing argument about the need for increased productivity although it seems to be in disagreement with Mr. Jay Forrester about limits to future growth in the economy. Would you comment on this? If there is an argument, what is the resolution?

Dr. Grayson: Jay Forrester and his fellow researchers have said that we are going to run out of resources one day, and there is a limit to the world's ability to produce physical resources. Given that this is so, there are limits to the growth which we can tolerate. Therefore we need to take steps early on so that we don't run out. This would lead to horrible Malthusian predictions coming true.

This study, which was sponsored by the Club of Rome, got to be famous with a book which was subsequently written under the title *Limits to Growth*. Everyone should read this because I think there's some element of truth in it.

Where I part with this group is that I do not think that the limits of man in the future will be contained by the parameters that he uses today. The authors do say that we could benefit from *some* changes in technology, the ability of humans to be more productive and so on. But the significant difference between myself and this view is that I think the potentials for change are almost boundless. We have shown this in the past and it doesn't take much of a projection to project forward and say that we will not run out. We may run out of X materials, we may run out of the ability to produce wheat on X percent plot of land, but there are different ways to produce food. There are different ways to produce metals; there are different substitutes and you can change processes. No one can prove that I'm right or that they are right. But I think that we've shown enough ingenuity so that I do not think that theirs is the correct thesis. That's on the more technological and prediction argument.

I'm also against stopping growth because I think I know what the consequences would be within the first 2 to 5 years—fantastic social unrest. There would be a much smaller pie to divide up. The demands are not going to decrease from the people who are on the low end of the income distribution, and there are a lot of people who want to give them "more" out of a sense of equity or egalitarianism. If we stop growth, the only way you'll be able to help increase the social gains for the poor will be to take it from the top. Thereby you would end up with a narrowing income distribution, by taxation. If you don't do that, you would have high social unrest in a short period of time because of the fantastic expectations that are built up in peoples' minds.

Over the history of this nation, we have had a fantastic growth and we've given large dividends to people at *all*

levels of income. True, we still have an income disparity. But the people on the botton end of the income level have gained absolutely. And if you look at the nations of the world where growth has *not* occurred, you find fantastic quality of life degradations in almost all dimensions—health, education, survival and general standards of living. Thus, I think growth is almost a necessity for this nation to be able to deliver the kind of system we have.

This is not to say that we don't have negative by-products as a result of that growth. We have pollution which grew because we didn't count it as a cost of growth. Now we're trying to correct it and in some cases it's too late. We have some other costs on the social side. So I'm not saying growth is all pure gold. But I would much rather have these problems than to have an economy which has stable or zero growth.

Are we going to have a depression?

Dr. Grayson: I don't think so. I don't think we'll allow it to happen. Before that occurs, we'll pump more money back in and buy more inflation. The only answer is maybe we *can't* prevent it—that things have gotten so far out of control that we have to have the cleansing fire of a depression. I just don't believe that.

Would you comment on your Harvard Business Review *article about the use of systems analysis research personnel to improve productivity?*

Dr. Grayson: What I was reporting in that article was that I think that the people in the field of management science and operations research need to change some of their behavior in order to deliver what the promises are of this whole area. That article attracted a lot of heat and interest, particularly from some management science and/or people who said I was a turncoat because of my background in this area.

If you read the article closely, it says that there is a tremendous potential for these fields to contribute. I think they're not being as productive as they should be because of some of their own behavior. And I cited in this article what the behavior was that was blocking their productivity. The behavior was isolationism, sitting off and talking to themselves about their beautiful models, and working on the refinement of the nth dimension of the linear programming methodology on a nonexistent problem. The article is a pretty damning indictment of why I think people in this field are not behaving as *productively* as they can.

When you were addressing the question of productivity of individuals, you didn't comment on the role of women and their impact on productivity. I would like your comment on this please.

Dr. Grayson: Only because I didn't have time. One of the reasons we've had the productivity that we have had to date has been the fact that larger numbers of women have joined the work force. Had we not done that, our productivity wouldn't be at the level which we now have. There have been blocks to women's moving into more productive capacities. We're slowly seeing women moving into the management structure rather than just being held to clerical positions only. I think this is essential.

At that point I drop women out as a class, and say that *all* groups need to have more responsibility given to them, with accountability and with the freedom to be able to move into productive capacities.

At SMU, we have a Women In Business Program and people have asked what special courses we give to them. We don't give them a single separate

course. What we're doing is setting up a system of information and an opening up of the structure and the process, so that women are allowed to realize their potential.

Relative to your question, let me cite what I think is a fairly alarming economic outlook that was just published in a report from OMB. I'll just read a couple of sentences. I quote:

> The potential as well as the actual output growth basis begins to decline in the 1980's and will likely continue through the year 2000. Even though the rate of productivity has been only 2.8 percent since World War II, the aging of the work force and the decline and the proportion of workers and people in the prime innovating years of 25 to 40 will cause a trend downward in the output per man hour to an annual rate perhaps as low as 2 percent by the year 2000.

If that's true, then an alarm bell ought to go off everywhere.

Are you saying we should have more children?

Dr. Grayson: No, I won't say that. But whatever the size of the work force, we'd better make every one of those individuals there count fantastically toward the overall productivity. If you have less people, you'd better make them more productive.

Can the United States benefit from a study of Japanese techniques? Is the Japanese successful experience transferable?

Dr. Grayson: Yes, to some extent. So is the Swedish experience with job redesign. And in England with ICI and the Glacier Metals Company. I could cite others in Europe and Japan that have done similar things.

What we should bring over are the parts that are adaptable to our culture. I don't think the Japanese company family concept transfers well. But their idea of job enlargement and enrichment and work redesign, with participation by the people who are actually doing it, is one of the things we can learn and copy from the Japanese. They in turn are going to change some of their system because it's turning out that a lot of the young people don't like the immobility that you get in their system. They're demanding more mobility and higher starting wages. They start them off at very, very low wages and the younger people are dissatisfied.

I think your point illustrates very well that we can learn from the other nations. They have some proven aspects of management that are important and we should copy what we can adapt and use.

What factors other than productivity contribute to the current price rise and what are we going to do about these?

Dr. Grayson: That is obviously a very complicated question! We're inheriting now some problems that were started some time ago.

First, I think we've overstimulated the economy. Back in '71, '72 and '73 we overshot. We did too much. At the same time the world had a similar shot in the arm. We devalued twice in the middle of all this, which made our goods more competitive and sucked them out to world markets. I know because I had a problem trying to stop some of those goods that were sailing out of this country and creating price rises here. To top it off we had an unbelievable set of agricultural disasters around the world, and an Arab oil embargo.

You put it all together and suddenly we're in a gigantic ride upward. Therefore, it wasn't one thing—it was a series of things. How can we possibly get the inflation rate down?

One, increase productivity. The more

you have of productivity, the less you have of inflation. Additionally, you have to work on the transmission belts which are the monetary and fiscal policies. If you don't get monetary and fiscal valves under the controls, the rest doesn't matter. You can blow the best policies out of the water by increasing the money supply too much and overspending on the budget.

The bill that was signed by the President today, to have Congress control the budget, is a very good step. It forces the Congress to look at the total amount of spending relative to our resources. I think we're going to have to live with some restraint in the economy for some years to come and this will help. We're going to have to live with more restraint on our spending—Federal, State, and personal—for years before we can get those excesses down. Underneath all that are the social expectations that are driving the ship.

What type of policy would you propose to handle the less developed countries—the third world countries?

Dr. Grayson: I don't know. I do know that that is a danger spot in the whole world, not only from a social and ethical point of view but from a political point of view. In the years ahead, I even worry in dark moments about their getting possession of the bomb which is becoming more available. What will happen to a nation whose people are hungry and that is literally going bankrupt? They will desperately look around for measures to use. But that's a scare kind of thing. I wouldn't have thought about that being feasible years ago but now it enters my mind as a small probability.

Domestically, we also have many deprived people and must find various ways to help them, particularly with inflation eating away at them most cruelly. Some direct assistance programs I would support. Indexing for people with low income groups might be another way. I do not favor, however, indexing the whole economy. That would create cost-of-living escalators for everything. That would grease the skids all the way up. But indexing for low income groups would provide more equity and will help them.

We also have a faulty system of measuring gross national product. It is the only definition we have around until we substitute something else. I think we're getting some false readings by the present system.

For example, pollution cost wasn't added in as a cost to society and we made a mistake. We're not putting into our measurements the quality aspects of life, which is very important to each one of us when we start to talk about productivity. We don't measure that, but we ought to try and start to do that. We need a better measurement. I don't know how we do that but perhaps it could be an assignment of the new American Productivity Center.

Coverage On Medicare Claims

Mr. President, today I wish to announce the release and comment on a study prepared at my request by the General Accounting Office on the amount of coverage being provided by medicare on individual claims. Over the years I know that all of us have received many complaints that medicare was covering far below its authorized 80 percent on individuals' claims. As chairman of the Senate Committee on Aging, I have been increasingly concerned over these reports, especially in that they so often stated coverage of 50 percent instead of 80 percent.

. . . The GAO report provides excellent information on this issue.

Senator Frank Church
Congressional Record
March 4, 1974

Leonard S. Silk
Member of the
Editorial Board,
The New York Times

Prior to joining The New York Times *in 1970, Leonard S. Silk was a Senior Fellow at The Brookings Institution and had been with* Business Week *from 1954 to 1969. He began his newspaper career as a reporter on* The Atlantic City Press *and worked as a U.S. Army newspaper reporter and editor during World War II.*

Mr. Silk was educated at the University of Wisconsin where he received his B.A. degree in 1940. He obtained his Ph.D. degree at Duke University in 1947. He has taught economics at Duke University, the University of Maine, and Simmons College and has been a lecturer at New York University and Columbia University. In 1965–66, he was Ford Foundation Distinguished Visiting Research Professor at Carnegie Institute of Technology and in 1968 was a visiting professor at the Salsburg Seminar in American Studies.

He was a member of the President's Commission on Budget Concepts in 1967, Chairman of the Task Force on Employment and Income Maintenance (1968–69), and a member of the steering group of the Task Force on the War Against Poverty (1964). In 1962, he was a consultant to the President's Advisory Committee on Labor-Management Policy. He is a member of the American Economic Association, the Council on Foreign Relations, and a Fellow of the National Association of Business Economists.

He has written several books, including Nixonomics, Capitalism: The Moving Target, *and* Contemporary Economics. *He has received various honors, including the Loeb Award for Distinguished Business and Financial Journalism in 1961, 1966, and 1967, and the Overseas Press Club Award for best business reporting from abroad in 1972. Last year he was named Poynter Fellow in Journalism by Yale University.*

Our meeting today marks the conclusion of our "Changes and Challenges for GAO" lecture series. During the past 22 months, we have heard the views of leaders from various fields of endeavor on subjects in which they were especially knowledgeable and in which the GAO has an interest or involvement. The topics have ranged from the world food crisis, congressional reform, and the Federal stake in health care, to the effectiveness of the public service.

During their presentations, the speakers have challenged us. A few of them have praised us, some have criticized us, but above all, they have added to our knowledge and have given us new perspectives on some of the very important questions of our day. I can think of no topic that is more important, more timely, or more fitting to conclude our series than the one which our speaker today will be discussing. It's the question of economic problems and prospects.

Our speaker is Leonard S. Silk, who is a member of the editorial board and the financial columnist for *The New York Times*. He's well-qualified to offer us fresh insights into this very complex and vital subject. He has a wide and varied background in the field of economics. He has been an educator at half a dozen colleges and universities, an editor and journalist with *Business Week* and currently with *The New York Times,* and a prolific author, having to his credit nearly a dozen books on economics. For his work in journalism and business reporting, he has received numerous honors. In 1974, Mr. Silk was named Poynter Fellow in Journalism by Yale University. He has received both the Loeb Award for Distinguished Business and Financial Journalism and the Overseas Press Club Award.

Leonard Silk is no stranger to the budget and fiscal affairs of the Federal Government. He has written much in this area and has been a keen analyst of the Federal budgetary process. I first came to know him well when we both served as members of the President's Commission on Budget Concepts in 1967. He made a major contribution to the work of that commission. He frequently reminded the commission of the importance of simplifying as much as possible the presentation of the budget, in order to improve the public's understanding not only of what was in the budget but also its implications for the economy.

We appreciate his taking the time to come down here and ponder with us some of our economic problems and prospects as he sees them.

—Comptroller General

Economic Problems and Prospects

Leonard S. Silk

When I get despondent about government once in a while, I always think of Elmer Staats and the kind of job that he has done over the years and I think that the model of not only integrity, which we ought to take for granted, but the model of professionalism is something quite remarkable and indeed an example I would hope that every other agency in government could and would follow.

Today I've got the messy job of dealing with the overall economic problem, and I wanted to start with some general remarks that are supposed to be modest, not only in my behalf, but in behalf of the economics profession as a whole. One of the greatest sources of difficulty for any nation in understanding its economic problems and in solving them is the remoteness and complexity of that thing that we call the economic system. Nobody can really see the system as a whole. Individuals come in contact only with certain parts of it—the housewife sees the prices that she pays in the supermarket, but she cannot see beyond her eyes, cannot feel the forces that are pushing up prices at home or abroad. The businessman knows what's happening to his own business, to his costs, to his sales, to his profits, but the causes of what is affecting him are buried in a welter of data that he cannot sort out and has real difficulty in comprehending. Politicians have the same problem. They feel the pressures of their constituents. They know their agonies over unemployment and inflation and they are more sensitive undoubtedly than most citizens to the dangers facing the nation as a whole—dangers to the stability of its currency, to its international trade, and indeed to its very security. But politicians, like everyone else, see the economic system through a glass darkly, and their insecurity in dealing with overall economic issues is probably greater than in any other area for which they have responsibility.

But do economists themselves have a secure grasp on that complex abstraction, the national economy? Honesty and not a desire to be cruel or superior forces me to answer that question in the negative. Although economists can discourse very learnedly about the economic system as a set of interdependent variables and although they share a large technical vocabulary and make use of some common analytical tools, I am afraid that the critical differences among economists on both analytical and policy issues at every turn demonstrate the insecure state of this quasi-science. Many disputes among economists, admittedly, are not about true matters of economic analysis or doctrine, but particularly on important questions stem from differences in the political, social, moral or, consciously or unconsciously, the vested interests of the disputants.

I have long believed that it would help matters if economists made their values explicit, rather than leaving them

concealed and bending their analyses to support a value conclusion. I find myself in agreement with Gunnar Myrdal's conviction that problems in the social sciences, not only the practical ones about what ought to be done but also even the theoretical ones of how to ascertain the facts and the relations among the facts, cannot be rationally posited except in terms of definite, concrete, and explicit value premises. This is most obviously true for economists serving in government or serving in the political opposition to a government. Economists may strive to capture that will o' the wisp, objectivity, but they commonly wind up supporting partisan interests, including not only those of a particular party or interest group, but frequently, and most of all concealed from themselves, their own past pronouncements which become a kind of vested interest of its own. Certainly on this matter of the partisan bias of the economists, the public is not ordinarily deceived. It identifies economists as liberal, conservative, middle-of-the-road, far right, or far left, and knows that their ideology affects the nature of their analyses or recommendations.

Yet, the situation may not be quite as hopeless as it sounds. The fact is that economists have, admittedly in a gross way, achieved some measure of understanding of how economies work and some degree of control over economic troubles. And when those troubles get severe enough, they can often overcome their partisan or doctrinal differences to make common cause with each other on how to solve the most serious problems.

At this time, I think we are at one of those critical points where every effort must be made, not only by the economists but by policymakers and politicians and the people of the country generally, to try to sink their differences and work together for the common good. There will be time enough to quarrel and outdo one another when this period of genuine crisis is past.

Nature of the Crisis

What is the nature of the crisis—I use the term, a term that's much overused undoubtedly but I'm using it carefully and, I think, literally—what is the nature of this crisis? Well, it's an extremely complex one, with its domestic aspects and its international ones, and the two, in a world that has been shrinking and becoming more and more closely interdependent, *are* interdependent problems.

There's, first of all, the problem that is now receiving the headlines and that has moved up to become, I guess, Public Enemy #1—recession.

There remains the problem that had that dubious honor until recently—inflation.

There is the energy crisis, which underlies *both* problems of recession and inflation, and on a worldwide as well as a domestic basis.

There's the problem of food, which is not, thank goodness, a problem for us here at home except for those people whose incomes are too low, but it is a very severe world problem, particularly in the developing countries of Africa and of South Asia.

There is the overall problem of the world monetary system, its stability, its survivability, and there, too, all of these conflicting pulls bear upon *that* as a separate problem.

And, finally, there is a problem which is not ordinarily thought of as economic but which can result *from* economic ailments, and that is the problem of national security—the problem of war, which—I am afraid to say—is also a very real problem. The sensitivity that coun-

tries all over, not only the Middle Eastern countries but the Western Europeans, showed to a one-sentence response to a hypothetical question by the Secretary of State is one indication of how close to the surface fears of war have become.

The Recession Problem and Fiscal Stimulus

How can one take apart this complex, interlocking set of problems, of crises, and deal with them? Like every other problem in life, one really has to start somewhere and deal with the bundle, element by element, piece by piece. So, I start with the problem of recession from the standpoint of our domestic economy. We are going to have a demonstration in the next few days of some sort of effort, either at the making of common cause by Republicans and Democrats, by the administration and the Congress, or conceivably we're going to have the opposite. I'm relatively hopeful, despite the battle that will occur in due course over specifics on the *amount* of a tax cut and the *form* of a tax cut and how it will be distributed, that there now is a consensus that is reasonably solid that there shall be a considerable degree of fiscal stimulus to get the recession slowed down and turned around, if possible, before the year is over.

My housemaid's knee tells me that we will witness the usual kind of scrap on two major issues, with Republicans taking the usual more conservative position that one must not go too far in fiscal stimulus lest one regenerate inflation, and with Democrats willing to take more chances and to insist that to do too little is dangerous, may discredit fiscal policy, will leave the unemployed to suffer, will allow the deficit in the long run to become still worse, etc.

On the other major issue that traditionally divides conservatives and liberals—and maybe that's a better way of characterizing the difference than Republicans and Democrats—there will also be a battle undoubtedly, and that is the distributional effects of a tax cut. Should it be across the board, such as a 12-percent reduction which I understand the President to be favoring, and if so, is that not loaded to favor those people who are in the upper income brackets who pay larger taxes and who have higher progressive tax rates and therefore would get a larger percentage reduction? Should it be loaded toward the front end—I mean the lower end of the income distribution? How much should go to business rather than to individuals? That will all be part of the fight.

On the net fiscal impact, that is, the stimulus, there is the related issue of what sort of energy taxation will be forthcoming and how much of it will be an offset to the fiscal stimulus via a reduction in personal income taxes and business taxes, in whatever form. I suppose that everybody now expects that the form of the business tax reduction will be through an increase in the investment tax credit, probably from 7 to 10 percent but possibly even more than that. But on the energy side, the figures get very enormous indeed, if the kinds of programs which are being talked about eventuate, that is, a sizable tariff on imported oil, a sizable tax on all domestic petroleum, plus some sort of recapture tax on so-called windfall profits, especially if oil is de-controlled—that is, if so-called old oil is de-controlled and allowed to rise to a market price.

If you add up all of those elements, you get figures in excess of $30 billion. One estimate I have seen is $37 billion in tax increase, and that would mean that if you merely did a $15 billion personal income tax cut, plus a $3 or $4 or $5 billion business tax cut, you still

would have a net increase in restraint of $17 billion, subtracting, say, $20 billion from $37 billion. Now, that obviously is not what anybody intends, Republican or Democrat, conservative or liberal. So, I would think that one rules that out as a possibility, but leaves uncertain what form of give-back of energy taxes we have—whether they will be voted at all; how they will affect our efforts not only to cure recession but to cure inflation; and the impact of this kind of energy taxation on the cost-of-living index. When your colleague Julius Shiskin, Commissioner of Labor Statistics, gets through plugging this kind of energy tax increase into the cost-of-living index and into all the kinds of goods and services that use oil as an input to the production process, we could give the inflationary spiral a very severe twist.

And that's no fun these days, especially when we have a wage system that is as heavily indexed as it is. Everybody talks about indexing as though it's a brand new idea thought up by Milton Friedman without reminding himself that we already *have* a great deal of indexing in the United States via the social security system, via some other pension programs, and probably even more importantly, via cost-of-living clauses in wage contracts. So, *anything* you do which affects the overall cost-of-living index gets multiplied as in a kind of echo chamber and gives you another inflationary lurch. So that's a real constraint on some of these energy taxes that are presently being considered and in fact are much sharper in their impact on the consumer price index or the wholesale price index than the tax cuts may be in curing recession.

There's also the overall theoretical worry about whether the tax stimulus may be excessive and may in fact—as some people fear—cause recovery to abort, put undue pressures on capital markets, tend to push interest rates up rather than down, and require that the Federal Reserve expand the money supply too much in order to finance a much larger deficit—a deficit that could run to $35 billion, even on fairly optimistic assumptions in the current fiscal year, and that could give you, depending on whether there is a strong recovery or not, an even larger or a considerably smaller deficit in the following fiscal year.

Will Fiscal Stimulus Work?

Ordinary citizens can really be not only pitied but *joined,* I should say, in their confusion and uncertainty about whether all of this is going to work out as the now more or less conventional wisdom of the economists states: that you've just *gotta* do it, trust us, it's not going to lead to all the disasters that innocent people, especially innocent editorial workers on newspapers other than the *New York Times,* fear.

Well, I don't know whether I can make, in the time available, an utterly convincing case that you should shut your eyes and go along, that we know what we're doing. But the case needs to be stated, so I will try to state it as succinctly as I can.

On the issue of the size of the budget deficit, the fact is, I think, that we will get a sizeable deficit whether we do or whether we don't, and there are differences in the character of a deficit. We are undoubtedly going to have a deficit in the current fiscal year of something of the order of $25 billion, give or take a few billion dollars, just as a result of the recession. There is undoubtedly going to be a very severe shortfall of tax receipts—it's always hard to know in advance how sizable that shortfall will be, but corporate profits are going to be down, unemployment is rising, income

is falling, and your tax system works, you know, counter-progressively, to reduce the tax yield so that is a little bit of extra buffer *against* recession. It doesn't work counter-progressively on corporate income taxes, since there is a flat rate of 48 percent above $25,000 in corporate income, but in any case we will have very severe shortfalls in revenues. If the recession deepens all through the year, those shortfalls will increase as the year proceeds.

Now, will the tax revenue losses and the resulting deficit be enough to turn the economy around? Here there is always a certain amount of dispute among the economists. My own position is that this kind of deficit is more of a buffer against recession than something that really turns the economy around. It helps to cushion it, in other words, on the way down, but it doesn't necessarily give you any stimulus because the basic structure of tax rates in relationship to expenditures *is* the same, and there's no good reason why people will begin to spend more out of income, given the stability of the tax structure, in relationship to government expenditures. So, I think I'm with the majority of economists in feeling that a deficit which is a so-called passive deficit—just a consequence of recession or depression—doesn't do you any particular good. That was certainly true in major downturns in the past, most obviously in the Great Depression. It was no great trick to get a deficit in those days, but neither is there any evidence that it was stimulative. There's not even too much evidence that it did very much buffering against the decline.

So, at any rate, modern fiscal policy requires you to *do* something, that is, to reduce tax rates or to increase expenditures, not just wait for a deficit to save you.

Effect on Capital Markets

On the capital markets, my own view is that we don't have to worry about a rise in interest rates resulting even from a swelling of the Federal deficit, because other demands on credit markets and the money market and capital markets will be diminishing if you accept the basic scenario of the worse economy. We know the disaster that has already struck the housing industry. Well, builders will be in this year for even *less* borrowing than they were last year, the way the trend is going. And other people related to the whole field of housing, including real estate and so on, will have reduced credit demands. The automobile industry is working off inventories and will have to borrow less money to *carry* those inventories. Auto sales are down and still look dreadful for next year. Individuals will be borrowing less. Corporations are trimming their capital spending programs and will be into the banks for less money; they may or may not be in for less money on bonds—that depends a little bit on rates. Bond borrowing may be *up*.

But on the whole, the picture for the overall economy is one in which the private sector is markedly reducing its demands for funds—for capital funds and for short-term funds as well. And in that situation the increased government borrowing not only fits into the economy more comfortably but also is a necessary consequence of a stimulative fiscal policy. So these nightmares that you get from some experts in the capital market, who are not necessarily economists, I think are excessive nightmares. They look at the deficit and they say, "This is going to be a disaster. We can't take that route." But all the economists that I know and respect, which is not a large number but exists, are in agreement that we should indeed grit our teeth and march forward to even larger deficits than we are going to suffer otherwise.

Stimulus of Monetary Policy

Monetary policy, in the midst of all this, does have its problems, and it is facing the particularly complicated problem of discovering whether there *is* a line that separates too much and too little. There may not be any such line. This is a way in which economics differs from, say, physics; one physical substance stops when another physical substance begins, but economics has problems that the mathematicians know naught of, even those who develop curves and topologies that ordinary people can't understand. I think it's possible in economics to have a situation where there *is* no line that separates too much from too little—where you either take too much or take too little, that is, too little monetary expansion or too much monetary expansion, with no dividing point between the two.

At the moment, the Federal Reserve is pushing for a more stimulative monetary policy without overdoing it. Up until now, the money supply has not been growing very rapidly, but the Fed insists that's not its fault. There has been some recovery from the very low rates of monetary growth that happened during 1974, when for awhile there was virtually zero growth in the money supply. That may have had much to do with the bringing of the recession, or it may have been more a consequence of what was happening out there that was caused by a number of other factors. But whether one pins the blame on the Fed or not, the fact is the money supply has still been growing relatively slowly, that is, at about a 4½ percent annual rate during the last quarter of 1974, and it's still growing relatively slowly. Interest rates have come down, but they've come down more because of a softening of demand than because the amount of money available was increased greatly by monetary policy. But the Fed has made clear that it wants to do its bit to help check the recession and, if possible, to turn it around without overdoing it, and I think that's right.

For the longer term, it seems to me that you *are* facing a question of whether you want to lean primarily on monetary policy to give you the growth that you want or whether you want to lean more on fiscal policy. This will be, again, an aspect of the debate over how much fiscal stimulus to give the economy, and it seems to me quite probable, if I may make a modest forecast, that we will find the conservatives again insisting that you shouldn't go too far in the fiscal direction, that monetary policy will get you out and get you out without overdoing it. But the liberals will take the opposite position that monetary policy has to support a much more expansive fiscal policy; and so again this debate between too much and too little will have its partisan aspects—the liberals will be leaning on Chairman Burns and the Fed to do more than it seems willing to do, and the conservatives will be upholding the Fed's more cautious policy—and objective people will be scratching their heads.

From Restraint to Stimulus—Will It Work?

So we are about to go into this exercise in stimulus—the 179-degree turn that Ron Nessen spoke about—from a policy of fiscal and monetary restraint to one of stimulus. And the question then is: Will it work, and when? Nobody really *knows* —that's the only correct statement about that—including *me*. However, I think that you have to believe that it will work to some extent, especially if the stimulus is adequate. I take a certain amount of comfort from our performance through the whole postwar period; we have arrested downturns and we have done it by conscious use of policies. There *is* a causal relationship between fiscal stimulus and monetary stimulus and overall

economic activity. It is not a very fine relationship. You cannot fine-tune the economy, but there is this gross consistency which I think you can discover in all postwar recessions and recoveries, and therefore until proved wrong, I remain of moderate optimism that we can do what we say we are going to do.

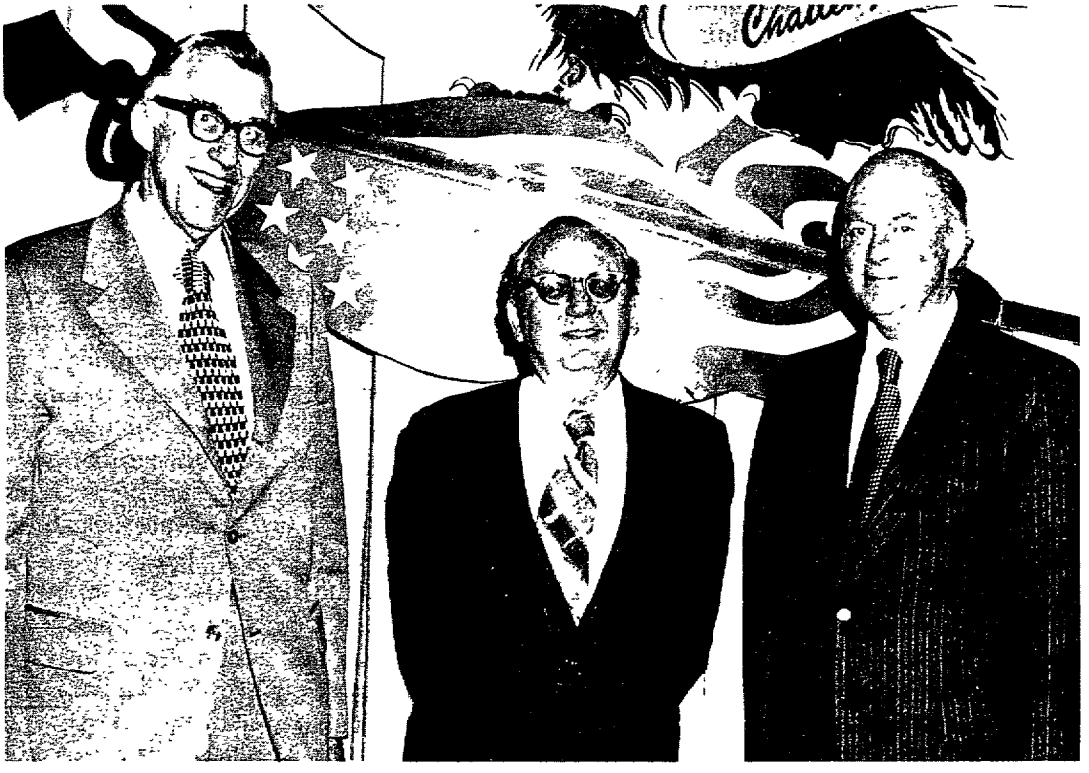
That it will happen in some kind of perfect and optimal way, I have serious doubts; and I think that we are facing what is at best going to be a pretty sluggish year.

Housing

I don't think that housing is going to turn around on a dime. As Elmer Staats was saying to me earlier, many people who are close to the housing industry—such as John Dunlop—are very worried about the damage that's already been done to the building industry and its ability to make a quick response, even *if* more money is available from savings and loan associations and mutual savings banks and other thrift institutions and from the banking system. There also is the problem of customers who are worried about recession, whose discretionary income has been cut, who don't like to pay 9 percent mortgages, and long-term rates have not come down all that much, and so on. So it seems to me that you've got to be a pretty convincing arguer to convince me, at least, that you're going to see housing with a V-shaped recovery starting next month. It seems to me we'll be lucky to avoid further deterioration of housing starts into the spring, and then I would hope we would see them at least flatten out and begin some kind of gradual recovery.

Automobile Industry

The automobile picture is still an extremely worrisome one: Detroit is in a



Leonard S. Silk, member of Editorial Board of the New York Times *(center), lecturer at GAO on January 13, 1975. On right, Elmer B. Staats, Comptroller General, and on left, Phillip S. Hughes, Assistant Comptroller General.*

state bordering on panic, and the nearness of unemployment helps to deepen the gloom not only in Michigan but any place where the auto plants constitute important employers. The energy crisis and the coming increases in gasoline prices are another depressant. The problem over the design of cars and their effect on the environment hangs over autos, both for the longer run and for the short run. So, I'm afraid that I'm reasonably bearish about the automobile industry. I would think that, if we are fortunate we might see the total amount of auto sales, including foreign as well as domestic, somewhere between 7 and 8 million, but that is not very good and I think that's a fairly hopeful forecast. There are some even more desperate ones you can read with total domestic and foreign sales falling below 7 million. I hope that that's exaggerated but it's very hard to get one's hopes up terribly high about autos.

Now, as autos go, an awful lot of other industries go—glass and rubber and the tire industry and so on, through the whole range, including a lot of things people don't think about, including tourism and hotels and motels and restaurants that are related to automobiles, plus advertising and so on. So, you have a ratio according to Leontief's input-output analyses of something like six non-auto jobs lost to every four auto jobs lost when autos go down. If autos stay down as low as they are, that means that a lot of other related industries are going to be in trouble.

Other Sectors

When you hit autos and housing simultaneously as hard as we have, it's difficult to be cheerful. Some other sectors have held up reasonably well; the steel industry, in which autos play not as big a part as they used to, has held up. And the chemical industry and the oil industry and a few others are holding up. Government is a much bigger employer than it used to be, including state and local, and we will have various kinds of supportive programs.

But when I add it all up, I really find it hard to get all that cheerful about this year. I think the best I can do is to say that we will build a kind of floor under the recession in the months ahead. We'll see some improvement in the liquidity position of banking institutions and corporations. As the corporations spend less on new plant and equipment, as the banks lend out less and the Fed helps to nourish their reserves, we will be building a base for an improvement. If we get the kind of fiscal stimulus that I think that is probable with the new Congress, the economy should show some signs of recovery before the year is over, and at that point my crystal ball really is not worth looking at. I would hope that things would go along all right next year.

The Worrisome International Scene

The things that really worry me are less the domestic economy—I think we can cope with our problems pretty well —than the overall international scene. There we have very severe problems in our relationship to our own allies in Western Europe, to the Japanese, to the oil suppliers, not only in the Middle East, but Venezuela and Canada. We are facing a world that really doesn't know how to get hold of itself.

We have a story today that is really a bit of a shocker. It has so respectable a member of the Italian establishment as Guido Carli, the Governor of the Bank of Italy, saying "No, thank you" to the so-called Kissinger-Simon Plan for recycling oil money. Mr. Carli seems to want no part of American aid with any strings attached. The whole idea of the Kissinger $25 billion fund was to build the Western Alliance more closely, to reduce the dependency of Western coun-

tries upon the Arabs or other oil suppliers. But Europe is nervous and timid, just as it was after the oil embargo was first launched in October of 1973. I hope that's too gloomy a view of the European reaction, but I know that it's one that is worried about at the State Department and in the American embassies abroad, and it creates a very severe problem for the Western Alliance. But I don't think that we should despair; we've got to try to hold things together as best we can.

Let me see if I can say a few things about what we would need to do to put the international situation right and give us some hope that we can avoid a tearing apart of the West and of the whole world monetary system. At a level of high generality, it's easy enough to say what needs to be done. First of all, we do need to preserve the Alliance, the NATO-OECD whatever-you-call-it Alliance, which includes Japan as well as the Western European countries and our North Atlantic states as important elements. It's extremely general to say that, but it's still absolutely vital to recognize that we must hold our system together; we must preserve trade or economies will be back where they were in 1931. And the same thing goes for the flow of investment money.

Thus far we *have* held things together. In part, you may think we've been lucky, and I think we *have* been; perhaps we haven't felt the full pressure. Yet I think the floating-rate system has, on the whole, worked reasonably well; it has avoided the kind of *tearing* monetary crises that we had back in the early thirties, though it's not guaranteed to continue to do that. Floating rates are probably at least as inflationary as the Bretton Woods system was—possibly even more so, since they impose no disciplines. The system is now deterioration-prone, with everybody's balance of payments excepting the Germans' in worse shape and pressures on all of the Western currencies in relationship to the oil-producing states. So that's not a very good guarantee that everything will remain all right.

Trade has held up. Thank goodness, we passed the trade bill. I think that we have also had pretty good behavior on no beggar-my-neighbor policies. Countries have not been doing what we did back in 1929, passing the equivalent of Smoot-Hawley Tariff Acts that would wreck world trade. But that could change, too, if countries get into deeper trouble on the monetary side and don't know how to pay their bills.

Next, we've got to do something about preventing countries from going under. I must say that I think the IMF play is most inadequate. In relationship to the size of deficits that countries will be undergoing, we do not have anything in place adequate to deal with that problem. I think that the Kissinger-Simon facility might barely be enough, but again that's on a kind of annual basis and it's very hazardous when you think of the risks involved and the problem of getting Congress to go along, to agree to carry weak members of an Alliance that don't want to be carried but would rather be carried by the oil suppliers—how we can get that one done, I don't know. But somehow or other, countries have got to be financed.

Up until now, there *has* been a great deal of individualism in the play, including our own, and much of it has taken a very dangerous form of shipments of arms to the Middle East. Squadrons of planes and all kinds of rockets and other kinds of armament, including things that are not formally armaments such as nuclear generators that can turn out plutonium—this, that, and the other thing—all make for an extremely dangerous situation. If the way we're going to solve balance-of-payments problems is by arms shipments, how long can you go on that

way? Of course, at some point, fortunately, there is a limit to how much anyone can use—that has not been a deterrent for us or the Russians, of course, but it may be a deterrent where you've got to have somebody to sit in a plane and fly it. So, at any rate, that is a worry and we've got to deal with it.

There's still the problem of inflation. I think there's considerable bad conscience on the part of the oil suppliers, including the Shah, about their role in the production of the inflation. They want to blame everybody but themselves for it. I noticed that the Shah in his meeting with Sadat got Sadat to sign a statement saying that the oil suppliers were not responsible for inflation, in exchange for the Shah's supplying a statement saying that the Arabs should get Jerusalem as well as everything else that the Israelis captured since 1967. That doesn't sound like too much for the Egyptians to agree to, but at any rate I take it as evidence of some degree of bad conscience on the Shah's part.

What Is Needed

When you look at all this, you think, "Can the mind of man possibly produce a rational and smooth solution to problems of these magnitudes?" And my answer is, "No, the mind of man *cannot* produce a rational and smooth solution." And so I have all kinds of trouble building in my unwritten scenarios. The variables are just too numerous; the possibilities are too uncertain; the politics of the thing are too complex. Economists hang their heads and retire to the closet if anybody really asks them to say what's going to happen. What we need is as sensible a play as we can get from governmental leaders, with the advice and counsel of the rest of us. And with that not very cheerful word, I throw this meeting open to questions.

DISCUSSION

I wonder what you would advise people who have some savings what they should do with their money? We've seen some people saying to keep it in a savings account. Merrill Lynch says this is a great time to get into the market.

Mr. Silk: I wish there were a law that forbid me to practice without a license. There may well be, so I will make a very guarded response. I think that the sensible, safest thing to do is to buy Treasury bills. And you can't go wrong. I think that the rate of inflation, as Alan Greenspan says, is going to come down to about 7 percent, and the bill rate is going to be 6½, if it isn't already, so you'll only lose a half a percent per annum. There are other things that one can do that are reasonably secure. I think that putting money in 6-year certificates of deposit and such as that will make sense at anticipated rates of inflation—if you're going to let your money alone that long.

And savings accounts should not be forgotten; they will help the housing industry, and you won't lose very much, even on the worst assumptions. So, there really is good old-fashioned savings, if one isn't too greedy. As for the stock market, I don't know. There's been a little rally now. Some people still think the bottom is likely to be around 475, so that Eliot Janeway can go home a really big winner. Eliot is already going home a big winner, if you're interested, because when you say to him, "Well, what about 500? The market's now up to 670—whatever it is today." He says, "On a correct basis, it's at 300," and I suppose that if you leave the Dow Jones aside and just use something like the Value Line index, there has really been about a 70-percent reduction in the value of *all* stocks listed on *all* exchanges—the American and over-the-counter market and so on, not just the New York Stock Exchange, and

not just the 30 industrials. So, at any rate, I'd be a little bit nervous about this recovery carrying all the way through, but, you know, what I have to say is worth practically nothing about the market.

I'm always either too nervous or civic-minded to advise people to buy gold. All of my goldbug friends are furious with me and with the *New York Times* for knocking the hell out of the gold market, but my really sophisticated goldbug friends say, "Thanks a lot, now we can buy at lower prices." So you can take your choices on those.

I'm not really, on investment, all that desperate. I don't think the kind of forecasts of runaway wild inflation that the real scaremongers have peddled are right. I don't think we're going to have galloping inflation, which I would define as rates in excess of, say, 15 percent per annum into the foreseeable future. I think we're following basically correct national policies. We did something very unpleasant in having to stop an inflationary boom. I think that we're still in the process of stopping it, and I would like to have fiscal and monetary policy reinforced by a stronger incomes policy which I will define as disguised controls—and whether they turn out to be direct or not is another matter. But if we are not facing galloping inflation; if we are going to be back to single-digit inflation, most forms of investment are things that you can be secure about. I don't think the banking system is going to collapse. I think that kind of scaremongering also has been excessive. I think we can prevent it, and therefore I would say do as your conscience guides you. And let God be your copilot.

Were the news media correct in blaming the oil companies for the oil crisis, and hence for the combination of inflation-recession or wasn't it the oil-producing states that were really responsible?

Mr. Silk: I think that the oil states undoubtedly were the primary factor in the recent explosion of oil prices. But for me to exempt the oil companies from any responsibility at all would be too much. I think you've got to go back over oil policy over the whole postwar period, which includes the oil-import-quota program and which includes the amount of domestic refinery capacity we have and a whole lot of things of that kind, and the basic relationship between the oil industry and a government which was often either absent-minded or incompetent to deal with these problems.

Even starting with the oil embargo, the question is not one of finding malefactors of great petroleum wealth or to invent conspiracy theories, but to notice the relationship of large multinational oil corporations with the Middle Eastern oil states. I think that they were in a position where they could not countervail the power of those states once that power was used. This is a matter that Senator Church's committee has been going into, and there've been some reports lately about it all.

The question from a policy standpoint comes down not to finding villains or devils in the offices of Exxon or Mobil or Texaco, but really asking yourself whether this kind of private-enterprise venture, operating in many countries and without much in the way of bargaining power of its own, can really do the job of protecting national interests against states which *have* full powers—by international law, whatever that is, or by their existence and ownership of facilities—or whether the Government does not have to come more heavily into the picture, in one way or another. At any rate, I come out of all of this still deeply concerned about the role that international oil companies have to play in the future and how, without necessarily nationalizing them or building one

monster American state-owned oil corporation, one can construct policy in a way to protect American interests. I think that to go beyond saying that into an effort at telling you what the policy ought to be is more than I'm really prepared to do or have time to do. But, at any rate, I'm still very much concerned about both the companies and our national policies, but I do give primary blame for this recent explosion to OPEC itself.

Why did the OPEC act that way?

Mr. Silk: I think that OPEC is probably a better answerer than I am. I think that, in part, we created the conditions by the kind of inflationary policies we ran in the West, including America's contribution to it. I spelled some of this out in a long article in the *Times* in July of this past year, called "How the World Economy Got Into This Mess." Undoubtedly, the inflation had a good deal to do with giving the OPEC countries the idea of really shoving up oil prices a great deal, so to that extent we are responsible for what happened.

However, the increase in oil prices went far beyond the other inflations. We certainly have *not* had, in the time period we're talking about, a 400 or 500 percent increase in other world prices. So I'd say they really outdid us.

Secondly, I think there is an element—call it vengeance or disgruntlement or something like that—of what they consider the exploitation by the Western industrial nations in the past. Now, that depends on one's point of view. Some people are sympathetic to the position that we really exploited the Middle Eastern states and other poor states, that the West is now paying the price for colonial exploitation. Even some Europeans, as I gather Giscard d'Estaing has expressed it, believe there is something in that and not just related to oil. Whatever the justification, the whole underdeveloped world is sore at the highly industrialized West for presumed past exploitation and intends to make up for it and to shift resources and wealth from us to them as quickly as possible. One hears this not only from broken-down, poor, starving people in the Sahel but from the Shah of Iran who never wanted for Cadillacs in the past, and from many sheiks too. At any rate we have the element of Fourth World combined with Third World vengeance operating.

Finally, I would say, to simplify matters, that there's just good old-fashioned human greed, which is not peculiar to oil-producing states but is known to all nations. But here was an opportunity where a monopoly existed, where oil consumers had become much more dependent on that monopoly—or potential monopoly—by the kind of policies that were run in the earlier period. Without antitrust laws or whatever to prevent OPEC from using that monopoly power, as does happen to some extent in our country or in other countries, they said, "Here it is. Wham! Let's go."

How much weight you give to the Middle Eastern situation politically—I mean to Israel versus the others—is a matter for subjective judgment. My own view is that, as they say at the State Department, the two issues can be decoupled. I think that the October War gave an excuse and gave an occasion, but if you ask Iranians or Venezuelans or Nigerians how important Israel is to their future thinking about oil prices, I think an honest answer from them would be not at all. I mean, this is something that we support our Arab brothers on, but what would Venezuela possibly care about Israel? So I put that down at the end of the list as not really very important to the real economics of oil.

If you had to choose between the inflation and recession as the worst problem, which would you choose and why?

Mr. Silk: I may reveal my own politics, but I think that though they're both very serious problems, I'd put recession ahead and I do it mostly—well, partly—in human terms. As we all know, it's a hell of a lot worse to be out of work altogether than to be cursing at the supermarket. And in those terms I think that unemployment is always more serious, unless it's a runaway inflation, and Lord knows, I think that 12 percent was getting too close for comfort. But if you're talking about what I hope will be the case, 6 or 7 percent inflation, with the kind of adjustments that we have to make, that is more tolerable than, say, 10 percent unemployment, because 10 percent unemployment turns over and a lot of people get affected and have their savings undermined and their kids' educations interrupted and they may lose their houses and all kinds of miseries result.

I think in terms of the impact on our system, also, that high unemployment is very bad news, for not only a lot of businesses who may fail, but bad news for our colleges, our churches, our nonprofit institutions; it's bad for government at the state and local level—you can't pay police, firemen, social workers, you can't do all sorts of things. It's just a bad way to run a country with high unemployment. It affects particularly disadvantaged groups in the society—blacks, teenagers, other minorities, women to a greater extent than men, and so on. And the strains on our social structure I find more severe.

So, without seeming to tolerate or apologize for inflation, which I never want to do, that is my answer, and I think that in solving one of those problems, there are ways of solving the other. I think that we have to make some long-run structural changes in our society in order to deal both with the problem of unemployment and with the problem of inflation. But that, too, is another long story.

As we lose purchasing power because of the recession, if the economy slows down, won't it slow inflation down?

Mr. Silk: Yes. I think that that is now happening. The question is can we go far enough and will inflation regenerate once we have got the economy turned around and we're moving forward? That's why I say I don't think fiscal and monetary policy are enough to protect us anymore. I think there has been enough change in our economic system so that we do not have a natural balance between full employment and price stability. We may never have had it in any perfect sense. You can always say that there was some degree of imperfection so that if you were at 4 percent unemployment, you were likely to have 2 or 3 percent inflation. But that was tolerable and there was at least opportunity for the statisticians to argue that the consumer price index was inaccurate and did not correct enough for quality change.

Whatever was true in the past, I think it is much less true now—that we are not able to get to, say, 4 percent unemployment and sustain it without doing anything else and still expect that inflation is going to come down to 2 percent per annum. It looks as though the so-called trade-off has been worsening, and even at 5 percent unemployment, we've had quite unacceptable rates of inflation of 5, 6, 7 percent even *before* prices began to run up to double-digit rates.

So, I think we've got to try to find means which are politically acceptable, of getting labor and business to cooperate on some form of wage and price guidelines policy, and that's going to be very

hard to do. It goes against the ideology of Republicans; it goes against the political interests of the Democrats, since labor doesn't like it and since many particular interest groups who have strength in the Democratic camp as well as in the Republican camp don't like it. Everybody, you know, has thrown up his hands about it but nevertheless we have had to keep coming back to it.

The Ford administration has, in effect, come back to wage and price restraints in a very guarded way. Al Rees has been trying to muscle down prices here and there and had a very limited success on steel. I think it's just not an area for ideology; it's an area for public administration and pragmatism, and my hero in this respect is John Dunlop, a conservative, decent, intelligent, more-or-less nonpartisan guy who, I guess, is a formal Democrat but whom Republicans have always been willing to take but who refuses to play ideological games and simply looks at reality as it is and says, "We've got to have specific efforts to deal with specific problems."

Unfortunately, there's approximately one John Dunlop and a thousand problems and industries and unions, and John seems to operate as well outside of construction as he does *in* construction so I don't know whether you can do it by a Dunlopian approach in life, which is very selective and individual, but I think that you *can* create more John Dunlops. I think that if you had the will in the White House to do it, then you could do essentially what we did during the war. We created our whole postwar generation of labor arbitrators and experts by creating the institutions in which people got to be experts—that's where they came from, including John Dunlop. But that generation is getting old and disappearing and we need a new generation of people who know how to deal not only with wage problems but with price problems. I think we're just going to have to face up to the need for government to take on new responsibilities in different areas.

So, whatever the specific formulation, that's the way I see it and I think it has to be a very important part of our long-range full employment, non-inflationary climate. But to say that we're close to producing that answer now would be to give you more hope than I have.

There have been numerous references in the media recently anticipating the reversal of the downtrend in the economy in approximately 6 months. I fail to see any basis for the explanation. Do you know why the economists are foreseeing this upturn in 6 months?

Mr. Silk: Well, I can state their reasons. Incidentally, I don't myself necessarily think that the real upturn will come that soon. But the argument is that, first of all, inventories will by then be back in decent shape—I mean sales inventory ratios. The normal length of an inventory correction is from 3 to 9 months, and assuming that you date this inventory correction from, say, October of 1974, by mid-summer you will have had about 9 months of some kind of inventory correction, and even if you don't have inventory rebuilding, to stop inventory cutting is a positive factor in relationship to inventory liquidation. So you get some strengthening that comes out of the inventory side, and once you get strengthening, then it tends to feed on itself.

I guess the second element would be changes in monetary policy, which operates with a lag. We had a lag, which is still affecting us and slowing the economy, during the period of very slow monetary growth in the first three quarters of 1974. Nobody knows what the lag in monetary policy really is—sometimes the Chicago monetarists have

called it about a 6-months lag, and sometimes it's been up to about a year—somewhere in that area—so if you had the slow part of monetary policy affecting you in the recent crunch and the return toward more stimulative policy starting again the fourth quarter of last year, by the second half of this year, with a 6- to 12-month lag, the economy should be feeling the effect of monetary stimulus.

There's also the fiscal stimulus that we're now getting into, and that may be somewhat quicker acting. The economists, I must repeat, can't give you good econometric evidence of exactly how long it should take. Sometimes, as in the case of the 1964 tax cut, you may get the stimulus even before the tax cut because people anticipate it and begin to spend more before the cut even goes through. I don't know whether that's just rationalization after the fact or the usual kind of storytelling that economists are prone to do—they are very good at backcasting but in any case fiscal stimulus is some part of the case for a second-half recovery.

The solving of inflation is taken to be a part of it, too: that you will get more real effect on economic growth if less money goes to pay for higher prices. There's a certain element of mysticism in that, I suppose, but the monetarists believe it very strongly and at least arithmetically it makes sense. What the monetarists say is that we can predict nominal GNP growth very well. Look at our brilliant performance in 1974. We were right on the nose. The only trouble was that they underestimated the inflation; instead of its being a 6-percent inflation, it was a 12-percent inflation; and they underestimated the real decline—instead of having real growth of about 4 percent, you had real decline of 2 percent. But if you add real decline of 2 percent and inflation of 12 percent, you had just what they told you—10 percent nominal expansion. Now, all you have to do is change one of these elements, that is, bring the inflation down from 12 percent to 6 percent and have the same amount of money fed into the system, and, lo and behold, 4-percent growth, and most of it in the second half of the year! Isn't that nice? So that's the reason.

You spoke earlier about change in the relationship between inflation and unemployment. What is it, in your view, that accounts for the change in the traditional relationship between inflation and unemployment?

Mr. Silk: That's a hard thing to answer because, first of all, we don't have decent measures of degrees of concentration that tell you what I would want them to tell me—degrees of rigidity. But I think that on balance, over time, there has been a rigidification of the system, not all of which is due to, say, the size of union membership or the strength of particular unions or concentration ratios in particular industries. I think that we've always had a certain amount of stickiness in wages. I think that we've built in more ratchets on the wage side so that wages only go up, they never hold still and they never go down and indexing is one aspect of that. I think government itself is responsible for ratcheting a good deal of the economy. We have examples of it, some of them not very pleasant, in such areas as, say, maritime, where you have legislation that holds up the price of building ships by putting more and more subsidy into shipyards or into operating subsidies all the time as a means of keeping an industry alive. And the same thing tends to be true in many areas, in transportation, in agriculture, so that when inflation is cooking, we continue to support certain prices and push them up, and when prices begin to fall, we try to stop them from falling.

Everybody likes a free market when things are going up. Everybody hates a free market when it looks as if it's going

to give you downward movement. One way or another, everybody—insurance companies and doctors and lawyers and everybody in the society—tries to figure out a way to get a permanent place on the merry-go-round. And the whole system becomes more of a merry-go-round, which nobody knows how to stop. Well, if you can't stop it, at least you've got to slow it down. If you can't kick people off the merry-go-round, then at least learn to control the merry-go-round. That's the kind of system I think we now have.

Now, this is all, I realize only too well, poetic language, and I can't prove to you thereby that somehow or other the system is now basically different from what it used to be. It may be that the most basic change of all is attitudinal and expectational, that people don't really believe that they're going to have a depression; they don't believe that if they don't do something about reducing prices or taking pay cuts or at least settling for no increase or very modest increases, that the system is going to break down. They say government won't let it break down, can't let it break down, and the Democrats won't let it break down, nor will the Republicans—they want to get elected, too. So nobody takes the need for restraint or cutbacks very seriously anymore. You may get particular changes in a particular industry, when they're right up against it—then you may see changes begin to happen. But by and large, you can't go far enough politically to change overall expectations and overall behavior and overall demand.

So I'm afraid that's the best I can do with an answer to that question. But, you know, the proof of the pudding is in the eating, and the evidence, I think, is pretty strong that we have a system that just doesn't want to behave itself, untouched by governmental hands, to the extent that it once seemed to do. It never worked all that well, as those of us who are getting quite old remember only too well. But now I think it really does work worse than ever. That's a hell of a way to end a lecture and I thank you kindly for inviting me for all this bad news.

Watchdog of the Congress

The Comptroller General today as in the past has been the vigilant watchdog of the Congress to control runaway Federal spending, cost overruns, illegal Federal contracting practices, and a variety of other actions which threaten the fiscal integrity of our Nation.

Senator Thomas J. McIntyre
Congressional Record
May 15, 1973