DRAFT -- Comments Welcomed

13438

SCIENCE, TECHNOLOGY AND FOREIGN POLICY OBJECTIVES: RESEARCH NEEDS FOR THE NEXT DECADE*

Robert A. Kirchner

Science Policy
U.S. General Accounting Office

PAD GAO 00230

Abstract

Over the past decade, there has been increasing interest in the use of vast resources in science and technology the United States controls--privately and publicly--as components of our foreign policy. Both in the formulation and implementation of policies and programs, which are the basis for U.S. bilateral/multilateral relations with other nations, scientific and technological issues and problems have gained a new significance. In the 1980s, new foreign policy initiatives, as well as policy reformulations will depend upon the abilities of policymakers to address alternatives for science and technology to support priorities and objectives.

This paper proposes a framework for understanding the many dimensions of science and technology which impact on foreign policy decisionmaking. The development of foreign policy objectives dependent upon aspects of science and technology is discussed in terms of the increasing importance of focusing research and policy analysis on this issue area.

Use this for document date

---

*Prepared for delivery at the 21st Annual Convention of the International Studies Association, Los Angeles, California, March 1980. The views expressed in this paper are not necessarily those of the U.S. General Accounting Office or the Comptroller General. I want to thank Howard Gobstein for his helpful comments on an earlier draft.

D2604363

009653

SCIENCE, TECHNOLOGY AND FOREIGN POLICY OBJECTIVES: RESEARCH NEEDS FOR THE NEXT DECADE

INTRODUCTION

During the first years of the 1980s, a major effort of the foreign policy community will be to reformulate United States foreign policy objectives and replace those which are not serving U.S. interests anymore. This process will be particularly centered in the U.S. Congress, and will be of greater or lesser concern to agencies across the executive branch. No matter the extent in which either branch of government deals with foreign policy formulation, both need to be well informed about the potential impact of the foreign policy objectives on the U.S. domestic situation, policies of other countries, and the international situation. For many reasons, designing foreign policy objectives for this decade will be more complex then we could have imagined a decade ago. 1/

U.S. foreign policy has been characterized as being flexible enough to permit choices between active U.S. involvement in world affairs and periods of isolationism. The premise of this paper is that we no longer have a choice. The effect of interdependence on U.S. policy options precludes attempts to maintain independent courses of action. U.S. foreign policy objectives should be aimed at the best methods to control U.S. international involvement, while making better use of valuable

resources available in support of our policies--such as science and technology. 2/ In addition, knowledge about U.S. interdependence with the political, economic, and social systems of other nations, although an interesting theoretical pursuit of the past, must be more adequately considered as a component of foreign policy analysis and formulation today.

U.S. foreign policy responses to international situations and problems often result in rapid, far-reaching changes in the world. Developing policy options is not only a more complex exercise, it is also more difficult and salient to the foreign policy decisionmaking. Although an increase in alternatives may not make decisions more rational or coordinated, more informative and comprehensive alternatives should help promote better judgment. If policy analysis 3/ is to be more effective for decisionmaking, objective, longer-term research must provide its foundation. Significantly, theoretical and methodological approaches exit in general, but little focused research has been forthcoming on a number of science and technology issues.

Federal agencies do have a role to play in providing the research needs to policymakers, and that role has become better defined and more influential in recent years. There still is a need, however, for the valid and necessary participation of observers outside of the Federal government. 4/

Voluminous foreign policy research has been accomplished, but--even though not neglected 5/--aspects of science and technology have only witnessed minor attention until recently. 6/

There is a need for a broader focus which accounts for aspects of science and technology. Without predicting that science or technology will become the most important concern of those formulating foreign policy objectives, whatever explanatory value science and technology may have will be of no significance if excluded from our frameworks. The current science policy advisor to the President, Frank Press, notes (1978:1):

> * * * that science and technology are important components of, and contributors to, international politics and foreign affairs. Yet, inside and outside of government alike, we often forget or ignore this fact.
>
> In the past, of course, national governments, including our own, could largely stand aside as technology advanced and could simply exploit it as needs and opportunities arose. Today, this is no longer the case.

Both science and technology have matured as issues--and there is at least theoretical consensus, and some empirical findings, that the nature of an issue affects the foreign policy activity of states. 7/ The Office of Science and Technology Policy in the Executive Office of the President, has provided the influence and interest base to sustain the development of a coherent effort on the use of science and technology to achieve foreign policy objectives. While

supporting the positive initiatives of the Federal government, Elmer B. Staats (forthcoming) concludes that:

> There seems to be little doubt that the all-pervasive impact of science and technology on national security, quality or life, the economy, and international relations is so important that Presidential decisions regarding these issues and strategies for resolving them must have the benefit of the best advice available. Objective, thoughtful, and imaginative advice from the science community is vital in matters such as arms control and international safeguards; national security and defense posture; foreign relations and sharing of technological resources with other nations; potential critical shortages of energy, materials, and food; environmental protection; and the economy.

The needs of decisionmakers for research findings on the actual and/or potential impact of aspects of science and technology on U.S. policy options will cover many subject areas--some of which have not been dealt with before. The research efforts should come from many disciplines, use interdisplinary, multidisciplinary, or contiguous problem approaches, 8/ and attempt to add important contributions formulating foreign policy objectives. Non-governmental research activities should complement the efforts inside government to assess and evaluate science and technology programs which confound U.S. foreign policy objectives. Together, both efforts could provide a better means to meet the problems of the 1980s. 9/

Science, Technology, and Foreign Policy Objectives

Almost all government agencies, as well as numerous non-governmental organizations are influenced by the international aspects of science and technology, which can be classified into two broad categories:

--Science and technology resources as a product of foreign affairs activities; and

--Science and technology resources as a support to foreign affairs activities.

Only piecemeal knowledge of the potential of these science and technology resources is available to provide an overall description of the postion of the United States in the international environment. As a science and technology programs and activities which (1) further progress in domestic and national security programs, or (2) enhance the effectiveness of international programs.

Traditionally, the organization of the Federal government supporting and promoting the use of science and technology resources, as well as international cooperation and coordination in the development and dissemination of new resources is based on an extremely diffused responsibility. These diverse and extensive efforts of the government to promote and develop science and technolgy resources in conjunction with government-wide foreign affairs activities has produced

national policy issues concerning the international aspects of science and technology which have come under increasing scrutiny by the Congress, the executive, and those outside of government. In addition, U.S. policy on the development and use of science and technology resources contributes to, depends upon, is in conflict with, and/or is interdependent with the national policies of foreign governments.

During the 1970s, Congress increased its demands that executive agencies develop policies which foster U.S. scientific and technological capabilities to strengthen our international economic position and promote foreign policy objectives. This mandate ultimately is aimed at effectively improving the quality of life and resolving critical national and local problems in the U.S.

These activities evidence an increasing awareness of the impact on domestic science and technology policies on problems, activities, and needs in other countries. Increasingly, bilateral and multilateral cooperation in science and technology will determine the direction and progress of U.S. attempts to improve the design and use of science and technology resources in support of economic and social programs at home. Developing foreign policy objectives in the future, therefore, will require knowledge well outside of the traditional substance of foreign policy. This is not an

enlightening conclusion, but it has taken drastic, almost traumatic, changes in the world situation to reinforce the efforts of those who have recognized this fact for some time. 10/ Others have addressed methodological concerns of gaps in research. James N. Rosenau (1973:30) writing on the need for theoretical and methodological breakthroughs notes:

> Insofar as the interaction of national and international systems is concerned, forward movement is manifest in an emerging preoccupation with a host of concepts that denote such interaction. Interdependence, penetration, linkage, intervention, emulation, integration, adaptation--these are typical of the concepts that some students of national and international politics have begun to take seriously.

He goes on to state (Rosenau, 1973:31):

> The conceptual tidiness achieved through analyzing the two types of systems separately is thus no longer compelling.

An innovative approach will be one which incorporates existing work focused science and technology as an issue area, and adopts established theory and methods as appropriate. The following is only a partial description of research approaches available that may be appropriate.

Approaches to Inquiry

Aspects of science and technology have direct and indirect impact on foreign policy objectives, and they make direct and indirect contributions to the implementation of foreign policy. These effects can be seen at the national, international,

global, and supranational levels. Research needs applying at least four approaches are apparent. They cover the following areas of inquiry: (1) national policies and programs; (2) comparative analysis; (3) international interaction/transaction analysis 11/; and (4) linkage analysis.

National Policies and Programs

The vast majority of research on science and technology has been at this level. Both concerning the United States and numerous other countries, the analysis of national foreign and domestic policies--descriptive and evaluative--is noteworthy. The many studies supported by the National Science Foundation--both internal and external--report on many aspects of science and technology in our society, as well as international science indicators. 12/ Perhaps more in-depth and substantive, are the analyses of various national policies and programs by the Organization of Economic Cooperation and Development, and for the U.S. the Office of Technology Assessment. These examples are chosen here because the efforts of these groups are on a continuing basis.

Future research in this area should recognize the impact of international pressures on national policies and programs. The valuable foundation of available indicators compiled for almost all countries today, should be a starting point for researchers to analyze, for any given country, elements of

domestic situations that are affected by events outside national boundaries. Finally, decisionmakers, as well as policy analysts, need to be more sensitive to other national approaches designed to solve common problems across nations, and determine what value they may be to us.

Comparative Analysis

Many observers feel that the United States is rapidly losing its status as world leader in science and technology. On the surface, if the quantitative indicators currently available viewed from a cross-national perspective are adequate to judge, the observers may be correct. Earlier, we attempted to explain how the international environment has changed, and has become more complex and interdependent. Traditional approaches to comparative analysis remain valid, but innovative methods to account for increased complexity may be needed to answer the appropriate research question: what should the postion of the United States in science and technology be to promote national interests? 13/

An example of a theoretical framework available to answer this question is the recently published work of Roger D. Hansen, Beyond the North-South Stalement. Hansen (1979:36) develops thoughout the book a "asymmetrical interdependence framework," which identifies shifts in the degree of dependence one nation has on another. John D. Sullivan (1976)

suggests a similar framework which could be adapted to the issue area of science and technology. There is little doubt that the results of comparative approaches have the potential of contributing to our knowledge and, hence, future policy options.

International Interaction/
Transaction Analysis

The United States once defined its foreign policy objectives in terms of bilateral relations with other nations. Since World War II decolonialization and the increase in international activities by governments, as well as non-governmental groups, changed this basic approach to foreign relations which includes participating in international organizations, developing multilateral relations, and dealing with global issues which transcend all national enitities.

Notably, science and technology can be characterized as being international in content. Themes abound--such as the "transfer of technology," "scientific exchanges," "science and technology and international competitiveness," and "science and technology for development"--and research reports have been prolific under this approach. The needs for inquiry in this area are based on the lack of research focused on science and technology interactions/transactions, which express foreign policies, and how the trends and

patterns of these phenomena affect the political systems and international situations involved. Charles A. McClelland's (1972) comments and suggestions on this approach are still valid. Drawing from the methods and approaches available, a few of the more interesting that could be adapted for our purposes are: Baumgartner and Burns (1975); Wallace (1975); and Brams (1969). For an interesting discussion of the possible theoretical dilemmas see Kenneth A. Dahlberg's, "The Technological Ethic and The Spirit of International Relations," (1973). Finally, directly related research efforts have been reported in Haas et al. (1977); Chouci, et al. (1976); and Jacobson and Kay (1979).

Linkage Framework

Solutions to complex problems resulting from the impact of science and technology at all levels will be based on decisions whether to control, apply, or develop specific aspects of science and technology for policy purposes. The research approaches we have suggested so far should all contribute to that goal. The very complexity of this issue area, however, requires research efforts that analyze these aspects across levels of analysis.

Impacts of science and technology the national level often influence events at the international, and certain patterns of interdependence may be observed. Of particular

note here are the numerous studies attempting to identify countries 14/ which have helped to develop two-directional thinking on a still crudely developed concept, interdependence. First, the economic dependence of one or more nations on one or more other nations can be accurately shown; and second, the nature of the international environment is affected by economic interdependence. Analyzing the international level alone will not reflect the impacts on internation dependencies, nor will a comparative approach, looking only at the within unit components of a society, produce the necessary results.

The intermix of internal and external elements in trying to link domestic and systemic sources of foreign policy has left researchers unable to determine which is the major influence--domestic or systemic--or how the mixture takes place. 15/ Dubin (1969) has noted that scholars often attempt to deal with a common analytical problem and in so doing have failed to match the complexity of the research problem. A linkage framework attempts to bridge the boundary between the national and international levels, using a common analytical problem of foreign policy implementation, while recognizing that much work still needs to be done on each side of the boundary.

At least two research frameworks are potentially useful. An approach to account for all linkages between

and within levels, as suggested by Rosenau (1973); or to develop separate but compatible research designs at different levels, addressing contiguous analytical problems and producing alternative explanations concerning the same phenomenon. 16/ The latter is probably more feasible because the research program is more manageable, but research should continue to be performed from both perspectives.

Approaches to explaining aspects and impacts of science and technology interdependence, although theoretically based, 17/ have not found much research focus outside of normative discussions stemming from economic studies. Interdependence has many dimensions other than economic: energy, food, health, critical materials, and communications--to name a few. Aspects of science and technology affect all of these dimensions and must be studied.

As decisionmakers continue to increase their reliance on the products of research, the demands for more rigor, comprehensiveness, and purposeful research will be a challenge to be met by the research community. Eventually, the results of scholarly analysis should be directed to more closely fit the needs of public policy formulation where its impact can have its most important affect. The policy needs of the next decade, at a minimum, will require the start of research efforts concerning issues--such as science and technology--too often overlooked or rejected. In the end, foreign

policy objectives represent only the directions the U.S. wants to move based on a combination of political, economic, and social knowledge bases.

The areas representing voids of knowledge on the aspects and impacts of science and technology have been highlighted in this paper. Research programs, at one or more of the levels of anlaysis presented might include the following on their agenda:

--Development of indicators, for all levels of analysis, on aspects of science and technology;

--Research designed to report on the postion of the U.S. in all areas of science and tecnology;

--Global aspects of science and technology should continue to be addressed in terms of analyzing a means for resolving specific global problems;

--Further development of a more responsive and useful method to account for interdependencies; and

--In response to the recent reorganization of U.S. trade policy responsibilities and functions, as well as the soon to be established Institute for Scientific and Technological Cooperation, evaluation of U.S. science and technology program implementation.

NOTES

1. The problem of increasing complexity involving the policy process was foretold earlier in Wright's (1955) chapter, "Technology and International Relations;" and in the insightful work of Edwards (1973).

2. Defining the differences between "science" and "technology," as well as identifying the uniqueness of each, is reserved for the future; but a starting point can be found in Science, Technology, and American Diplomacy (U.S. House of Representatives, 1977:19-20).

3. By "policy analysis," we mean any of the many research activities that support a decisionmaking process; see White (1978) for an essay on its value and application, and Granger (1979) and Smoke(1976) on its importance.

4. Campbell (1971: 12-13) and Lambright (1976: 9) suggest why its necessary; Rosenau (1971a: 10-14) presents his view of what the "division of labor" should be.

5. See Teich's (1974) work on scientists' attitudes; Wright (1942) began work on a number of related subjects, see his chapters on "Measurement in International Relations" and "The Relation of National Policies to Types of World Order;" also, the work of Skolinkoff (1967) and Nau (1976) are examples that neglect has not always been the case.

6. The fourth annual meeting of the Society for Social Studies of Science, held in Washington, D.C. (1979), highlighted this situation throughout its program; as did the recent special issue of Daedalus (1980).

7. Some of the available empirical evidence is reported by McGowan and Shapiro (1973: 190-191); also, see Kirchner (1976). Hoggard (1975); O'leary (1976); Rosenau (1971b); and Zimmerman (1973) discuss the theoretical and methodological aspects of issue-area analysis.

8. See White (1978) for a description of the interdisciplinary approach; Dubin (1969) for the contiguous problem approach; and Rosenau, Burgess, and Hermann (1973) for a case study of a research program.

9. Rochester and Segalla (1978) present the attitudes of policy makers on this subject; O'leary, Coplin and Shapiro (1974) evaluate the potentials and needs; and Hilsman (1969) explains what the different perspectives are--governmental and non-governmental.

10. Included among the group recognizing this fact are the House Committee on International Relations, in its support of a seven year study by the Congressional Research Service (U.S. House of Representatives, 1977); and Glennon (1976).

11. For the distinction between "interaction" and "transaction" see McClelland and Hoggard (1969: 713).

12. See the National Science Board's (1979) most recent report, Science Indicators 1978; for a review of science indicators and what needs we have for more and btter ones, see U.S. General Accounting Office (1979).

13. Robinson's (1969) discussion on "National Interests" is still important and useful today.

14. For examples, see Dolan and Tomlin (1980); Hansen (1979); and Ray and Webster (1978).

15. See Rosenau's (1973) review and discussion of the approach; examples of recent theoretical developments see Cole (1979); O'leary (1979); and OECD (1979).

16. The ideas of Brady and Kegley (1975) and Kirchner and McGinnis (1976) suggest ways to accomplish research by this approach.

17. See Hansen (1979); and Ruggie (1975).

REFERENCES

Baumgartner, T., and T.R. Burns. 1975. The structure of international economic relations. International studies quarterly. 19: 126-159.

Brady, L.P., and C.W. Kegley. 1975. Bureaucratic determinants of foreign policy behavior. Paper presented at the Annual Convention of the International Studies Association. Washington, D.C.

Brams, S.J. 1969. The structure of influence relationships in the international system. In J.N. Rosenau (ed.) International politics and foreign policy. Free Press.

Burrowes, R. 1972. Theory si, data no! World politics. 25: 120-144.

Campbell, J.F. 1971. The foreign affairs fudge factory. Basic Books.

Choucri, N., D.S. Ross, and D.L. Meadows. 1976. Towards a forecasting model of energy politics: international perspectives. Journal of peace science. 2: 97-111.

Cole, S. 1979. The role of technology in development. UNITAR news. 11: 6-1-.

Daedalus. 1980. Modern technology: problem or opportunity. Daedalus. 109: 1-187.

Dahlberg, K.A. 1973. The technological ethic and the spirit of international relations. International studies quarterly. 17: 55-88.

Dolan, M.B., and B.W. Tomlin. 1980. First world-third world linkages: external relations and economic development. International organization. 34: 41-63.

Dubin, R. 1969. Theory building. Free Press.

Edwards, D.V. 1973. Creating a new world politics. McKay.

Granger, J.V. 1979. Technology and international relations. Freeman.

Glennan, T.K. 1976. Technology and foreign affairs. Department of State.

Haas, E.B., M.B. Williams, and D. Babai. 1977. Scientists and world order: the uses of technical knowledge in international organizations. University of California Press.

Hansen, R.D. 1979. Beyond the north-south stalemate. McGraw-Hill.

Hilsman, R. 1969. Policy-making is politics. In J.N. Rosenau (ed.) International politics and foreign policy. Free Press.

Hoggard, G.D. 1975. Differential source coverage in foreign policy analysis. In J.N. Rosenau (ed.) Comparing foreign policies. Sage.

Jacobson, H.K., and D.A. Kay. 1979. The environmental protection activities of international organizations. Paper presented at the Annual Meeting of the American Political Science Association. Washington, D.C.

Jenkins, J.B. 1975. Reconceptualizing foreign policy behavior. In R.L. Merritt (ed.) Foreign policy analysis. Lexington Books.

Kirchner, R.A. 1976. Issue-areas and foreign policy output: toward forecasting international behavior. Paper presented at the Annual Convention of the International Studies Association. Toronto.

Kirchner, R.A., and J.S. McGinnis. 1976. An approach to the combined application of foreign policy analysis and international systems analysis. Paper presented at the Annual Conference of the Peace Science Society (International)/Southern Section. Durham, North Carolina.

Lambright, W.H. 1976. Governing science and technology. Oxford.

McClelland, C.A. 1972. On the fourth wave: past and present in the study of interntional systems. In J.N. Rosenau, V. Davis, and M.A. East (eds.) The analysis of international politics. Free Press.

McClelland, C.A., and G.D. Hoggard. 1969. Conflict patterns in the interactions among nations. In J.N. Rosenau (ed.) International politics and foreign policy. Free Press.

McGowan, P.J., and H.B. Shapiro. 1973. The comparative study of foreign policy: a survey of research findings. Sage.

National Science Board. 1979. Science indicators 1978. USGPO.

Nau, H.R. 1976. Technology transfer and U.S. foreign policy. Praeger.

O'Leary, J.P. 1979. Understanding the world political economy of the seventies. Paper presented at the Annual Meeting of the American Political Science Association. Washington, D.C.

O'Leary, M.K. 1976. The role of issues. In J.N. Rosenau (ed.) In search of global patterns. Free Press.

1969. Linkages between domestic and international politics in developing areas. In J.N. Rosenau (ed.) Linkage politics. Free Press.

O'Leary, M.K., W.D. Coplin, and H.B. Shapiro. 1974. The quest for relevance: quantitative international relations research and government foreign affairs analysis. International studies quarterly. 18: 211-237.

OECD. 1979. Global interdependence with scenario analysis: possible futures. OECD observer. 100: 24-33.

Office of Technology Assessment. 1979. Technology and east-west trade. USGPO.

Press, F. 1978. Science and technology in international affairs. Paper presented to a meeting of the Council on Foreign Affairs. New York.

Ray, J.L., and T. Webster. 1978. Dependency and economic growth in Latin America. International studies quarterly. 22: 409-434.

Robinson, T.W. 1969. National interests. In J.N. Rosenau (ed.) International politics and foreign policy. Free Press.

Rochester, J.M., and M. Segalla. 1978. What foreign policy makers want from foreign policy researchers. International studies quarterly. 22: 435-460.

Rosenau, J.N. (ed.) 1975. Comparing foreign policies: theories, findings, and methods. Sage.

1973. Theorizing across systems. In J. Wilkenfeld (ed.) Conflict behavior and linkage politics. McKay.

1971a. The scientific study of foreign policy. Free Press.

1971b. Foreign policy as an issue-area. In J.N. Rosenau. The scientific study of foreign policy. Free Press.

Rosenau, J.N., P.M. Burgess, and C.F. Hermann. 1973. The adaptation of foreign policy research. International studies quarterly. 17: 119-144.

Ruggie, J.G. 1975. International responses to technology: concepts and trends. International organization. 29: 557-584.

Skolnikoff, E.B. 1967. Science, technology, and American foreign policy. M.I.T.

Smoke, R. 1976. Theory for and about policy. In J.N. Rosenau (ed.) In search of global patterns. Free Press.

Staats, E.B. forthcoming. Reconciling the science advisory role with inherenttensions inherent in the presidency. Technology in society.

1979. Current national issues involving science and technology. Paper presented to a round table of the Duke University Graduate School. Durham, North Carolina.

Sullivan, J.D. 1976. Resources in comparative analysis. In J.N. Rosenau (ed.) In search of global patterns. Free Press.

Teich, A.H. 1974. Politics and international laboratories: a study of scientists' attitudes. In A.H. Teich (ed.) Scientists and public affairs. M.I.T.

U.S. General Accounting Office. 1979. Science indicators: improvements needed in design, construction, and interpretation. PAD-79-35.

U.S. House of Representatives, Committee on International Relations. 1977. Science, technology, and American diplomacy. USGPO.

Wallace, M.D. 1975. Clusters of nations in the global system, 1865-1964. International studies quarterly. 19: 67-110.

White, I.L. 1978. An interdisciplinary approach to applied policy analysis. Paper presented at the meeting of the APSA Panel on Applied Policy.

Wright, Q. 1955. The study of international relations. Appleton-Century-Crofts.

1942. A study of war. (2 volumes) University of Chicago Press.

Zimmerman, W. 1973. Issue area and foreign policy process: a research note in search of a general theory. American political science review. 67: 1204-1212.

UNITED STATES GENERAL ACCOUNTING OFFICE

Notice

You were recently furnished a document entitled "Disciplining the Professions--How Much Should the Government be Involved." This information failed to include that this paper was delivered by the Comptroller General of the United States, Elmer B. Staats, April 7, 1978, at the Arthur Young Professors' Roundtable, University of Chicago.

Addressee:
DLC04370

709671

DISCIPLINING THE PROFESSIONS--
HOW MUCH SHOULD THE GOVERNMENT BE INVOLVED

Sometime ago, Business Week published an article on the subject of "The Troubled Professions," pointing out that virtually all professions have increasingly come under attack in the United States. "Opinion polls," the article said, "show the public increasingly skeptical of professionals' claims to probity and competence." It continued,

> "In a sense, the gap between what the professions can deliver and what the public expects them to deliver results from two trends beyond their control: technological complexity and egalitarianism. Both trends are forcing a thoroughgoing reassessment of how well professionals do their jobs and redefining of what it is they do. The outcome of that reassessment will have great impact not only on professionals but on society as well."

The article discusses the criticism of a wide range of professions including medicine, engineering, accounting, law and business. There are many other signs of discontent about the professions. A public opinion poll about two years ago--commissioned by a large public accounting firm--found that far more people were distrustful of lawyers than of accountants and that even fewer trusted securities dealers--in case any of its members are present. In the light of what has developed more recently in connection with malpractice suits, doctors currently might rate below any one of these three. Just because this criticism is widespread does not in any sense provide consolation for the professions, accountants or any other group.

What causes our professions to be troubled goes deeper than the professions themselves, though their practitioners bear considerable responsibility for present concerns. Essentially the reason is that the climate in which the professions operate has changed, or perhaps one could

say the "human condition" everywhere is changing. Most aspects of society in most more or less democratic countries are under increasing pressures for change. These pressures are felt in medicine, the church, the military, and especially in the Congress, for whom of course I work. In this climate there has been loss of appreciation and respect for established institutions and for the professions. People are no longer willing to accept the validity of institutions just because they are here or that the "word" of the professional man is inviolable just because he is a professional. They ask questions about nearly everything and then not infrequently challenge the answers they receive.

The essential mark of a profession is that there is an obligation and duty owed to the public--not only the duty owed to clients. It is because this emphasis has been lacking that there has been greater interest from public groups in the activities of the professions. Professional people should be leading not merely following. The professions should not wait for pressures to develop; they should be in the forefront of making sure that they are rendering services to the public--through its clients.

So, it is small wonder that the professions are troubled. And in seeking answers to there issues perhaps we should begin with basics. What do we mean by discipline in the context of today's discussions? Discipline to do what? I went back to my old standby, Webster's Dictionary. In this context, he is helpful. We are discussing ethical considerations--that is, responsibility to a profession and to the public which is served by a profession. And, secondly, we are talking about the maintenance of professional standards--that is, the skills and learning requisite to discharge obligations assumed by a profession.

We are dealing then with three broad areas of concern. First, is the concern about intentional wrongdoing--fraud, gross negligence, criminal neglect, and so on. Second, we are concerned about competence and the failure to live up to established performance standards. Third, and most importantly, we are talking about changing public conceptions or perceptions of acceptable norms of protection of the public interest.

When there is intentional professional wrongdoing, the legal system normally becomes involved and wrongdoers are meted out punishments. This is usually followed by loss of the right to practice the profession. The record of the professions in ridding their ranks of proven wrongdoers is, by and large, reasonably good.

The legal profession has been attempting to police itself through various disciplinary boards. In some cases the profession has included citizens from the community to serve on the disciplinary boards so that the public aspect can be introduced. Previously only lawyers served on such boards. The disciplinary boards consider the individual's performance, competence as well as integrity. These boards have the authority to recommend to the courts the disbarment of an individual which throws him out of the profession and he can no longer practice law. This is a pretty harsh sanction.

The legal profession also is stirring up other traditional waters, notably in the courts. Recently the American Bar Association's Joint Committee on Professional Discipline drafted standards relating to systems for judicial and lawyer discipline. These standards for disciplining State as well as Federal judges were adopted by the ABA's House of Delegates meeting in New Orleans in February of this year.

In the accounting sphere, accountant's failure to follow generally accepted auditing standards is frequently claimed by injured investors. In our work at GAO we often review CPA's audits of grant programs. We find cases in which severe deviations from generally accepted auditing standards occur--such as failure to make working papers to support work performed.

For example, recently the General Accounting Office selected 12 audits made by CPA firms of Federal assistance grants to States and localities. Based on a preliminary review, we judged eight of these as inadequate or substandard. In two instances, embezzlement was involved. In one such case, the fact of embezzlement was not reported to anyone and the amount involved was simply classified as "receivable from employee." In the other instance, the embezzlement was made known to the grantee but not to the Federal Government.

Discipline is needed to see that established professional standards are pursued by all practitioners. Yet the disciplinary procedures followed in the accounting profession for substandard work are not considered effective by many people. The accounting profession is concerned and has taken significant steps to assure professional discipline; however, there is a widely held view that considerably more needs to be done. Other major professions appear to have similar problems.

The most perplexing part of the discipline problem; however, is the third area. The public expectations regarding professional performance seem to be constantly growing.

Consider today's sensitivity with respect to improper corporate payments, the insistence that virtually all public officials make full disclosure of their financial interests, laws which require limitations on campaign financing, and the spate of legislation and regulations which have developed in the last five to ten years in the fields of health, safety, and the environment. Public interest groups--Naderism, Common Cause, public interest law firms, and, yes, even public interest accounting firms--have sprung up to remind us daily that the public interest in this or that situation is not being adequately protected. Statements emanating from these groups, of course, provide excellent copy for the investigative reporter and the newscaster.

It is unfortunate that protesters and challengers make most of the noise while large numbers of professional people, businesses, corporations and financial institutions maintain unsung, year in and year out, the high standards we are talking about. This professionalism is well outlined by a president of a large southern corporation who said not long ago:

> "Above all, I expect (my) Law Department to have a high sense of honesty and fairness, or evenhandedness all the way. I believe that this is one of the real meanings of the phrase, "Officers of the Court," I think that the leaders of all professions--including business and the law--have an obligation to themselves, to those they deal with, and to the public at large to maintain high standards of integrity at all times."

Even so, where competence and adherence to professional standards is concerned, the record is far less than admirable and it is not surprising that the accounting profession is sensitive to and deeply concerned about the Metcalf staff report and the subsequent committee report or the more recent hearing conducted by Mr. John Moss in the House of Representatives. Congressman Moss is quoted as saying that he is "pointing in the direction" of introducing legislation that would create a self regulatory organization that all accounting firms practicing before the Securities and Exchange Commission would have to join. This organization presumably would be patterned along the lines of the National Association of Securities Dealers which has, as we all know, authority to apply sanctions for those who do not live up the the standards of the profession.

This suggestion echoes a recommendation contained in the Metcalf Subcommittee report recommending that an accounting organization with authority similar to that of the New York Stock Exchange for the National Association of Securities Dealers be considered provided that there was a mandatory membership requirement to assure that all accounting firms auditing publicly owned corporations are members.

The Chairman of the SEC, in testimony presented in February, urged that the accounting profession be given more of an opportunity to set up its own system, pointing to recent progress. By recent progress, he undoubtedly refers to the proposals of the American Institute of Certified Public Accountants, together with actions taken or proposals made by several of the "big 8" public accounting firms, notably Arthur

Andersen and Company and Price, Waterhouse and Company, in their presentations before the Metcalf Subcommittee. This included several stringent professional requirements for firms of accountants who audit corporations that report to the SEC.

My two colleagues on the panel today are obviously well qualified to evaluate in more specific terms the actions which have been taken relative to the accounting profession. In general, I would certainly share the general view of the Chairman of the SEC. But even if new legislation is not voted and the hopeful steps which have been taken are put into effect, the overall question will remain as to whether further government involvement in the establishment and adherence to professional standards can be avoided. I cannot answer that question definitively today and I am not expecting anyone else to attempt a definitive answer.

I might mention at this point that we in the General Accounting Office found it necessary to prescribe standards for public accountants who perform work for the Government requiring the expression of an opinion on financial statements. This standard requires basically that such accountants be certified public accountants or a certain grandfathered group of independent noncertified public accountants who were licensed to practice before January 1, 1971. The standard is set forth in our "Standards for Audit of Governmental Organizations, Programs, Activities and Functions" better known as the "yellow book."

We considered it necessary to issue these standards because in carrying out our responsibilities we use the work of other auditors, including that performed by public accountants; therefore we have a great

interest in being sure that such auditors do satisfactory work for Federal agencies and for State and local governments involved in administering Federal programs.

Governmental entities provide some of the most diverse and challenging work in the accounting and auditing field. Accordingly, Government departments and agencies need the best audit skills obtainable. Authorizing auditors who have not demonstrated that they possess such skills to render opinions on financial statements will not provide the public with the protection it needs.

Our recommendations in these standards are not statutorily based, but they are nonetheless influential with Government officials.

Another mark of professionalism might be for all professions to show the public that there is no mysticism surrounding what they do. It is the responsibility and obligation of the profession to educate the public to that. The public should be shown how to accommodate itself rather than be surrounded with the aura of the profession. It should be helped to understand what the professions are attempting to do; in a word, take the mistique out.

The objective should be to make the public aware of the efforts being made and the difficulties involved in dealing with some of the concerns which are being dealt with by the accounting profession. In short, to inject a sense of realism which will make it clear that, even under the best of circumstances, differences of opinion will develop as to what is proper of improper or right or wrong in a given situation.

Perhaps a word should be said about journalism. I believe this is relevant since a number of journalists have been in the forefront of the public criticism of the performance of the accounting and other professions. Is journalism a profession?

The question is a fair one because the professions, as we understand the term, includes membership in an organization that prescribes standards of conduct and disciplinary actions which each member accepts if he or she performs in such a way as to bring opprobrium upon his colleagues. While there is a fraternity of journalists, and various associations of writers and editors--some having codes of ethics--there is no all-embracing professional organization of American journalism and no self-disciplinary machinery in the sense of other professions. Some journalists, obviously enough, are professionals in every sense of the word. But as a group, journalists include television, radio, newspapers, newsletters, and independent publicists--a hetrogeneous array of talented people. In any event, journalists are frequently challenged by the public, and especially by those they write about, as being "unprofessional", a charge that often includes editors and, sometimes, publishers.

I have included one newspaper editor's definition of his profession that most of the journalists I know--and I know quite a number--would subscribe to. It is interesting that his ethic is the same as that of the corporation president, quoted previously. The editor was Joseph Ward of the Denver Republican, speaking in an earlier day of this century. He wrote:

> "I want to tell you what a newspaper means. It's a serious sacred business. The least smell of corruption, fear or favoritism must not creep into its news columns . . . Avoid even the appearance of evil. Never again do anyone a favor which might compromise the newspaper you are connected with . . .Never sell out your paper in thought or deed. A newspaper doesn't belong to the men who run it or to those who own the plant. The press belongs to the public, to the people."

You see, Mr. Ward makes the same point we are making in this paper--that a profession exists to serve the public, and to serve it well.

What is important is that we recognize the reality that the high degree of public sensitivity to professional performance is not likely to diminish--particularly those professions which intimately affect the publics interest. It is not enough to emphasize that the problems which have been publicized are the actions of the few. It is not enough to point out that professions are being attacked for actions taken by their clients. It is not enough to say that the public interest will be damaged if insurance policies designed to protect against litigation will increase the cost of professional services to the public. So long as the courts are willing to accept cases for litigation, Government is going to be involved in a range of matters, such as malpractice suits, alleged violations of anti-trust laws, and class-action suits.

All of this is not to suggest, however, that progress has not been made and that the future will inevitably bring about the type of intervention which you and I would like to see avoided.

It seems to me that the "bottom line" in our discussion today comes down to the basic ingredient of public confidence--confidence in the ethics and integrity and the necessary trust which goes along with being a member of a profession; confidence that the profession will require that its members maintain their skills through programs of continuing education and maintenance of high professional standards; confidence that the profession has an adequate disciplinary process which will exclude those who do not meet these tests; and confidence that a system is in place which offers a fair hearing for those who are dissatisfied with professional performance.

Further, a profession must be ready to meet reasonable public expectations for increases in the scope of its responsibilities. It should also point out when expectations exceed what is reasonable and it should do its best to see that the public understands its limitations.

When these conditions are not met or where there is concern with respect to the maintenance of the above conditions, Government--Federal, State or local--has taken a hand. While State and local licensing procedures are historic and well known it must be said that State and local licensing boards have not stepped up to the role that the public demands of them. If they do not perform their tasks in maintaining the competence level and the integrity of the professions which they are licensing, then the Federal Government may be forced into regulating or legislating in this area.

Only in relatively recent years has the Federal Government taken a hand to assure that professional standards are adequate to protect the public interest.

Of course, the Securities and Exchange Act of 1933 was a major step in this direction. It is worth noting that at the time this legislation was under consideration in the Congress a proposal was seriously considered which would have required that financial statements contained in registration statements be certified by federally employed auditors. Only on the assurance of representatives of the accounting profession that independent auditors could meet the test of independence and objectivity did the Congress recede from this position. The SEC was to serve as Congress's agent to see that this assurance was fully carried out. The SEC role, as well as that of the Federal courts, has played an indirect, if not a direct, part

in the development of professional standards by the accounting profession and securities dealers.

The SEC and the Federal courts are not alone among the Federal agencies in their concern with respect to professional standards. There are many others. While I am touching on only a few in my statement, I have prepared an attachment which sets forth in somewhat greater detail the statutory and regulatory actions which have been taken with respect to other professions. Perhaps these will help place in somewhat better perspective the Federal Government's interest and involvement with respect to the accounting profession.

Our research does not disclose extensive Federal regulation of outside professionals. However, the potential is there. A prominent example is the concern over the competence of U.S. trial lawyers. The potential response to this concern is imposition of special standards for practice before Federal trial and appellate courts. But for the most part, applicable statutory and regulatory provisions deal chiefly with the ethics of Government employees which are rather repetitive. There is surprisingly little regulation of the competency of private individuals. Moreover, what statutory authority does exist for regulation is put to limited use. For example, the Commodity Futures Trading Commission has apparently not attempted to carry out its authority to prescribe training and experience standards for futures commission merchants.

The subject of how we can discipline a profession will assume even greater importance in the future as Government intervention in the lives of all of us becomes more pervasive. It is true that we hear a great deal

about reducing Government regulation, reducing the paperwork burden, depending to a greater degree upon private initiative and self-regulation. These are commendable objectives which we should all seek to achieve. More basic, however, is the fact that our population is increasing, society is becoming more and more complex, and science and technology has taught us that it has both benefits and costs which must somehow be brought into balance. With all this, Government has played and will continue to play an increasing part. One aspect of Government's role will be to assure that professional standards which affect the public are maintained.

An unknown philosopher once said that "self discipline is the yoke of free men." If we are to achieve the objectives of greater freedom and self-discipline, we must find a way to show the public and the Government which represents the public that the trust which is placed in professional bodies is met. No statement of ethical rules and guidance by and of themselves can assure ethical conduct; ethical behaviour, in the final analysis, must come from the character of the individuals who make up the profession. I close with a quote from an article, "The Shame of the Professions" in Saturday Review, November 1975 by Max Lerner:

> "One thing all the professions need to do is to recapture the sense of vocation or calling. It is still implicit in many of the professions, among artists, writers, actors, doctors, therapists, social workers, teachers, politicians--the sense of being called to a work that is fulfilling of self and that helps and changes the lives of others."

# # #

ATTACHMENT

This attachment identifies certain ethical and competency requirements imposed upon individuals associated with or affected by Federal regulatory agencies. The provisions listed are taken from statutes and regulations applying to selected agencies, and also include certain general statutory and administrative requirements which have Government-wide application. The listing is not exhaustive, even within the particular agencies identified, but serves to illustrate the types of requirements frequently imposed.

COMMODITY FUTURES TRADING COMMISSION

Regulation of employees:

General prohibitions against conflicting interests, 7 U.S.C. 4a(f); 17 C.F.R. 140.735-3.

Commissioners and employees generally prohibited from engaging in commodities transactions, 7 U.S.C. 13(d); 17 C.F.R. 140.735-4.

Prohibition against incompatible concurrent employment, 17 C.F.R. 140.735-5.

Prohibition against negotiating for private employment while representing the Commission, id., 140.735-6.

Prohibition against accepting things of value from persons having an interest in a Commission activity, id., 140.735-8.

Statements of financial interests required for certain employees, id., 140.735-7.

Restrictions against practice before the Commission by former Commissioners and employees, id., 140.735-10.

Conflict of interest restrictions applicable to Commission experts and consultants, id., 140.735-13.

General standards of employee conduct and remedial actions for violation of standards, id., 140.735-14, 15.

Prohibition against disclosure of nonpublic commercial, economic or official information, 7 U.S.C. 13(e); 17 C.F.R. 140.735-9.

Disqualification of administrative law judges from particular proceedings for personal bias or conflict of interest, 17 C.F.R. 10.8(b).

Disqualification of other presiding officers from particular proceedings, id., 12.44.

Regulation of practitioners before agency:

Attorneys excluded from further participation in an adjudicative or investigative proceeding in the case of misconduct, 17 C.F.R. 10.11(b), 11.7(c)(2).

Denial or suspension of privilege to practice before the Commission for violation of the Commodities Exchange Act or Commission regulations or for other misconduct, id., 14.4-14.7.

Disqualification to practice before the Commission for persons who lack the requisite competence, character or integrity, id., 14.8.

Persons practicing before the Commission must file information concerning adverse judicial or administrative actions involving criminal or other sanctions against them, id., 14.9.

Regulation of private individuals:

Registration and financial responsibility requirements for commission merchants, 7 U.S.C. 6(f), 12a.

Reporting and recordkeeping requirements for futures commission merchants and floor brokers, id., 6g.

Registration required for associates of futures commission merchants, id., 6k.

Registration required for commodity trading advisors and pool operators; prohibition against fraud or misrepresentation by advisors and pool operators, id., 6n, 6o.

The Commission is authorized to establish training and experience standards, and to administer examinations, for futures commission merchants, brokers and associates, id., 6p.

Disciplinary action authorized against exchange members, id., 12c.

Futures commission merchants, foreign brokers, and certain traders, processors and dealers must file commodity transaction reports with the Commission, 17 C.F.R. 15.01.

Limitation on individual holdings of positions and on daily trading to prevent excessive speculation in specified commodities, 7 U.S.C. 6a; 17 C.F.R. 150.

FEDERAL ENERGY REGULATORY COMMISSION

Regulation of employees: */

Commissioners must have background, training and experience necessary to assess fairly the needs and concerns of all interests affected by Federal energy policy, 42 U.S.C. 7134.

Commissioners are prohibited from engaging in other business, vocations or employment, id., 7171(b).

Supervisory officials must divest energy holdings, id., 7212.

Commission employees who are former employees of energy concerns may not participate in certain Commission proceedings, id., 7216.

Employees are prohibited from owning or participating in the purchase of any securities of public utilities, licensees and natural gas companies subject to the jurisdiction of the Commission, 18 C.F.R. 3c.5(b)(3)(i).

Employees are prohibited from using inside information for private gain, id., 3c.6(b).

Commissioners, other officers and employees and Commission experts and consultants are subject to general standards of conduct, which are enforceable by disciplinary and remedial actions, 18 C.F.R. 3c.6, 3c.10, 3c.101-112. 3c.201-206.

Disclosure of energy assests is required of officers and employees; supervisory employees are required to report prior employment by an energy concern, 42 U.S.C. 7213; 18 C.F.R. 3c.7; 42 U.S.C. 7214.

Former supervisory employees of the Commission are restricted from appearing before or attempting to influence the Energy Department; such former employees must also report subsequent employment by an energy concern, 42 U.S.C. 7215.

---

*/ Some of the provisions discussed here apply generally within the Department of Energy.

Regulation of practitioners before the agency:

Persons appearing before the Commission must conform to the standards of ethical conduct required of practitioners before the courts of the United States, 18 C.F.R. 1.4(a)(3).

The Commission can prohibit the appearance or practice before it by persons found to be unqualified or to have engaged in improper conduct, id., 1.4(b).

There is a prohibition against ex parte communications in on-the-record proceedings to Commissioners, members of their personal staffs, administrative law judges or other employees participating in such proceedings, id., 1.4(d).

FEDERAL GRAIN INSPECTION SERVICE
DEPARTMENT OF AGRICULTURE

Regulation of Government-employed and licensed inspectors:

Qualifications and competency standards for licensed grain inspectors, 7 C.F.R. 26.76.

Examination required for private applicants for license as grain inspectors, id., 26.78.

Duties of official inspection personnel established, id., 26.85.

Standards of conduct established for Department inspection personnel and licensed inspectors, id., 26.86.

Prohibition against conflicts of interest by Department inspection personnel, id., 26.87.

Prohibition against incompatible outside activities, including membership in farm organizations, by licensees, id., 86(d) et seq.

Penalties established for violation of regulations; suspension, termination or cancellation of licenses authorized, id., 26.80-83, 26.89.

INTERNAL REVENUE SERVICE

Regulation of employees:

Rules of conduct--employees are prohibited from:

giving preferential treatment,

impeding Government efficiency or economy,

losing complete impartiality,

making a decision outside official channels, and

affecting adversely the confidence of the public in the integrity of the Government, 31 C.F.R. 0.734-30.

Limitations on outside financial interests, id., 0.735-35.

Prohibition against use of official designation in furtherance of private interests, id., 0.735-36.

Prohibition against soliciting outside financial aid for organizations comprised of Treasury Department employees, id., 0.735-40.

Prohibition against use of intoxicants in manner causing embarrassment to the Treasury Department, id., 0.735-45.

Restriction on advertising, soliciting for the sale, etc., of any article while on Government property, id., 0.735-52.

Employees (GS-13 and above) required to file comprehensive financial disclosure statements, id., 0.735-70.

General rules of conduct for special Government employees, id., 0.735-204, 205.

Regulation of practitioners before agency:

Qualifications:

Attorneys not currently under suspension or disbarment by IRS

Certified Public Accounts not currently under suspension or disbarment by IRS

Enrolled agents who may be required to take an examination, 31 C.F.R. 10.3.

Duties relating to practice:

Duty to inform client of errors or omissions in reported income exemptions, etc., 31 C.F.R. 10.21.

Duty to be diligent as to accuracy, id., 10.22.

Duty not to unreasonably delay inspection of pending matters, id., 10.23.

Duty not to act as notary in matters concerning a client's income tax preparation, id., 10.27.

Duty to avoid conflicting interests except with full disclosure and consent of all interested parties, id., 10.29.

Duty not to charge unconscionable fee for represention of client, id., 10.28.

Duty to avoid solicitation of clients, id., 10.30.

Suspension or disbarment may result from:

conviction of criminal offense,

giving false or misleading information,

solicitation of employment,

failure to file income tax return or attempt to evade Federal tax payment,

inappropriate attempt to influence IRS officials,

misappropriation of client's money,

maintaining a partnership for the practice of law, accounting, etc., with a person disbarred from practice before IRS, or

contemptuous conduct (use of abusive language, making false accusation, etc.), id., 10.50.

FEDERAL COMMUNICATIONS COMMISSION

Regulation of employees:

Financial interest and affiliation limitations upon Commissioners and employees, 47 U.S.C. 154(b).

General prohibition against actions which are improper or give the appearance of impropriety, 47 C.F.R. 19.735-201a.

Acceptance of gifts, entertainment and favors by employees restricted, id., 19.735-202.

Restrictions on engaging in outside employment and other activities, id., 19.735-203.

Prohibition against conflicting financial interests, id., 19.735-204.

Restrictions on the use of Government property, id., 19.735-205.

Prohibition against misuse of nonpublic information, id., 19.735-206.

Any conduct by employees prejudicial to the Government prohibited, id., 19.735-209.

Prohibition against special Government employees using Government employment or inside information for private gain, or accepting certain gifts, entertainment or favors, id., 19.735-302, 303, 305.

General provisions on disciplinary and other remedial action against employees, id., 19.735-107.

Special employees required to submit statements of other employment and financial interests, id., 19.735-403, 406.

Interests of certain relatives of employees are considered interests of the employee, id., 19.735-407.

Specific reporting requirements for special Government employees, id., 19.735-413.

Former Commissioners and employees are restricted in practicing or appearing before the Commission, 47 U.S.C. 154(b); 47 C.F.R. 1.25.

Former special Government employees are restricted in representing certain parties before the Commission, 47 C.F.R. 19.735-306(e).

Regulation of practioners before agency:

Disciplinary action against attorneys practing before Commission--censure, suspension or disbarment, 47 C.F.R. 31.24.

General requirements are imposed for a station operator's license, 47 U.S.C. 318; 47 C.F.R. 13.1.

FEDERAL AVIATION ADMINISTRATION

Regulation of employees:

The Administrator and Deputy Administrator of the Federal Aviation Administration must be civilians with experience directly related to aviation, and they can neither engage in other business nor have a pecuniary interest in any aeronautical enterprise, 49 U.S.C. 1341.

General prohibitions against engaging in unethical, criminal, infamous, dishonest, immoral or other conduct prejudicial to the Government, 49 C.F.R. 99.735-7.

Prohibition against accepting gifts, entertainment and favors from persons having an interest in a Department of Transportation activity, id., 99.735-9.

Prohibition against incompatible concurrent employment, id., 99.735-11.

Prohibition against engaging in financial transactions in reliance on information obtained through Government employment, id., 99.735-13(b).

Statements of financial interests required for certain employees, id., 99.735-31.

Duty of employee to pay financial obligations in a proper and timely manner, id., 99.735-21.

Restrictions on gambling, betting and participating in lotteries, id., 99.735-23.

Regulation of private individuals:

Aircraft registration requirements for owners, operators and navigators, 49 U.S.C. 1401.

Persons desiring to operate as air carriers required to comply with safety standards prescribed by Administrator and to apply for air carrier operating certificate, id., 1424.

Air carriers and aircraft operators must inspect aircraft and equipment for compliance with orders, rules and regulation of the Administrator, id., 1425.

Administrator may reexamine civil airmen to ensure safety in air commerce or air transportation, 49 U.S.C. 1429.

Aircraft operating and manufacturing requirements for persons engaged in air commerce or air transportation, id., 1430.

Civil and criminal penalties imposed on persons found in violation of Federal aviation law, rules, regulations or orders, id., 1471, 1472.

Administrative requirements for designating private aviation medical examiners, pilot examiners, technical personnel examiners, aircraft maintenance inspectors, engineers and manufacturing inspectors to act as representatives of the Administrator in examining, inspecting and testing persons and aircraft for the purpose of issuing airmen and aircraft certificates, 14 C.F.R. 183.

Proficiency and physical requirements for issuance of pilot and flight instructor certificates and ratings requisite to aircraft operation, id., 61.

GENERAL REQUIREMENTS FOR THE CONDUCT OF GOVERNMENT EMPLOYEES

Statutory provisions:

Prohibition against Government employees acting as agent or attorney for a claimant against the Government, 18 U.S.C. 205.

General limitations on former Government officers and employees appearing in administrative or judicial proceedings in which the Government is interested, id., 207.

General restriction against employees participating personally and substantially in a Government decision which affects their personal financial interests, id., 208.

Prohibition against employees receiving compensation from a non-Government source for their performance of official duties, id., 209.

Restrictions on the disclosure of proprietary information, id., 1905.

Executive order:

Standards of ethical conduct for Government officers and employees, Exec. Order No. 11222, May 8, 1965, 3 C.F.R. 547.

Civil Service Commission regulations:

General prohibition against Government employees acting improperly or giving the appearance of impropriety, 5 C.F.R. 735.201a.

Restrictions on the acceptance of gifts, entertainment and favors, id., 735.202.

Restrictions on outside employment and other activities, id., 735.203.

Prohibition against conflicting financial interests, id., 735.204.

Restrictions on employee use of Government property, id., 735.205.

Prohibition against misuse of nonpublic information, id., 735.206.

Special Government employees prohibited from using Government employment and inside information for private gain, and from accepting certain gifts, entertainment and favors, id., 735.302-303.

Specified Government and special Government employees are required to report financial interests and other employment, id., 735.403, 406.

Interests of certain relatives of employees are considered interests of the employee, id., 735.407.

Chicago - Philadelphia

Thursday, April 6

9:15 a.m. - lv. office

10:00 a.m. - lv. Washington National via UNITED AIRLINES 327

10:55 a.m. - ar. Chicago — Reservation: Center for Continuing Education, University of Chicago, 1307 East 60th St., Tel: (312) 753-2231

12:00 noon - luncheon meeting
Charles B. Stauffacher
Field Enterprises, Inc.
401 North Wabash Ave.
Tel: (312) 321-2691

1:00 p.m. - Arthur Young Professors' Roundtable

5:00 p.m. - dinner meeting
Visiting Committee to the Committee on Public Policy Studies
Sydney Stein, Jr. (312) 368-7668
meeting: Room 303, Wieboldt Hall
dinner: Center for Continuing Education

6:00 p.m. - Quadrangle Club, 1155 East 57th St. — dinner speaker: Chester B. Vanatta, Arthur Young & Co.

Friday, April 7

8:45 a.m. - Arthur Young Professors' Roundtable reconvenes

11:00 a.m. - "How Do You Discipline a Profession?"

12:45 p.m. - Luncheon - Center for Continuing Education

3:00 p.m. - lv Chicago via TRANSWORLD AIRLINES 290

5:50 p.m. - ar. Philadelphia — Reservation: The Benjamin Franklin Hotel, Chestnut at 9th St., Tel: (215) 922-8600

- dinner

8:30 p.m. - Third Session - Eighty-second Annual Meeting
The American Academy of Political and Social Science

Saturday, April 8

9:45 a.m. - meet Dr. Wolfgang
Independence Room
Mezzanine

10:00 a.m. - Fourth Session
Garden Terrace

- lunch

2:42 p.m. - lv. Philadelphia via METROLINER

4:30 p.m. - ar. Washington

April 6-7 1978

November 14, 1977

CG-77-326

Miss Burns, OL

Comptroller General(Signed) E.B.S.

The Arthur Young Professors Roundtable,
April 6-7, 1978, University of Chicago

I have agreed to take on a speaking engagement in the spring, sponsored by the University of Chicago, on the general theme, "How do you Discipline a Profession?" The subject will be conducted as a Roundtable to which 30 or 40 leaders associated with the accounting profession are to be invited. I must submit a paper by February 15.

I would appreciate it if you could suggest any articles or other publications which you think would particularly bear on the subject. While the topic is obviously focused on the accounting profession, it is my impression that the sponsors would like to relate it to actions taken by other professions to assure adequate independence and quality performance.

cc: Mr. Dembling
Mr. Morse
Mr. Scantlebury
Mr. Sawyer