APPENDIX 7
COMMENTS BY TAS PANEL MEMBERS

APPENDIX 7a

Columbia University in the City of New York New York N.Y. 10027

DEPARI_h4ENT OF POLITICAL SCIENCE 420 West 11 i3th Street

November 7, 1976

Ms. Marcia MacNaughton
Office of Technology Assessment
Congress of the United States
Washington, D.C. 20510

Dear Mar i a:

I received earlier this week the Draft of the OTA Review of the Proposed Tax Administration System of the Internal Revenue Service," and have read it closely.

My detailed comments and queries have been written on the pages of the draft, which I am returning with this letter to facilitate your review of them.

Overall, in my capacity as Chairman of the Panel asked to advise OTA on possible review of the TAS system, I am very pleased with the draft you have prepared.

1. First, it is exactly the kind of technology–assessment directed to issues of civil liberties, social effect, political impact, and inter–governmental relationships that I have long believed Congress should conduct when very large-scale computerized information systems such as TAS are proposed by Executive agencies.

2. Second, if OTA follows through on one of the options presented on page 2 of the Draft Summary, that is by having OTA actively assist the Subcommittee on Oversight of the Ways and Means Committee, that would meet one of the most serious deficiencies that I have noticed occurring when congressional subject-matter committees review the information-system proposals of executive branch agencies: the usual lack of varied expert advisors, covering all the requisite disciplines and perspectives, to help the Congressional staffs' and Committee h!embers hold sufficiently authoritative inquiries. An OTA assessment effort geared, in whatever form, to support directly the Congressional inquiry i.s what as complex and potentially influential a system as TAS merits -- by its dollar costs, its potential effects on IRS organization and procedures, and i-ts potential effects on taxpayers and our national tax system.

3. Third, were I a top official in the Internal Revenue Service, I would view such an OTA review as the best possible preparation for the predictable response of the media, public interest groups, civil liberties groups, business groups IRS-law specialists at the bar, and many members of Congress beyond the Ways and Means Committees. The questions proqounded in this Draft Review are tough ones. They assume things can go wrong in even the best-intentioned information systems of the size, complexity, and novelty of TAS, a judgement that the f'irst two decades of computer use in large organizations amply supports. The Draft assumes that a penetrating review now may flag some issues that only Congress can properly deal with in our political system; some that may require explicit rules and procedures set down by IRS; and some that will inevitably be dealt with by the courts. The Review also assumes that projecting forward into the late 1970s and *1980s* some of the serious violations of confidentiality and breaches of security that have been disclosed in the handling of IRS data during the past decade is a necessary way to challenge proposed safeguards. In short--without having exhausted the kinds of tough-minded questions that have been assembled in this Draft--this is just the kind of advance probe that should help IRS to anticipate problems. formulate meaningful answers, and reconsider its own assumptions.

4. Fourth, I am pleased that this Draft makes the vital distinctions between matters of privacy and due process on the one hand and security on the other hand. While I have not seen the GAO report on TAS, my conversations with several GAO officials confirms that theirs was and is a report addressing primarily physical security. It cannot be considered a full technological assessment of the entire spectrum of privacy, due process, and system-secmity aspects of TAS. Therefore, I share the Report's judgment that the comprehensive examination it proposes has not yet been done, and needs doing.

5. Fifth, I regret that it was not possible for OTA to convene our full panel for a second meeting, following our receipt of this Draft. Had this been possible, we could have had a useful exchange of views by all panel members about the strategy of this kind of assessment, its component issues, the types of responses of fact and judgment that are required, and many tantalizing matters mentioned in the Draft but postponed for now. This is not in any way a criticism of the excellent, sustained consultation that has been done with me as the Chairman and with the individual panel members. I can recognize many fine contributions of our group in what is presented here. However, in the spirit of Jacqueline Susan's novel, once is not enough for a panel of varied experts, who have not worked together previously, to give OTA the measured estimate that I believe

it needs even in a preliminary review. A second meeting not having been possible, however, I regard this Draft as a fine and useful contribution.

6. Finally, I would like my letter to express to OTA my great support for its entrance into the assessment of information systems such as TAS. It is hard to think of any technology more significant, and more likely to become even more significant in the next 25 years, than computer and communications technologies. We have seen criminal justice information systems unfold without~ in my judgment, Congress having had an early enough and strong enough role in assessment. Ahead lie the likely Systems for a national health insurance system, a welfare-reform program, and for government reorganizations of the kind that President-elect Carter has firmly promised. I suggest that a sound and searching review of TAS by an appropriate OTA-assisted effort, in conjunction with Congress, would be an excellent first step by OTA into an area that needs its attention. To be sure) there are other important actors in the process, from the General Accounting Office and the National Bureau of Standards to important private and semi-official bodies, such as the National Academy of Sciences. In my view, though, OTA has the best and broadest mandate to consider every aspect of a technological innovation or application, and I strongly urge it to do so in the case of TAS.

I would be happy to help in any further way in the preparation or presentation of this Report. Please don't hesitate to call on me.

Sincerely,

Alan F. Westin
Professor of Public Law and Government
Panel Chairman

APPENDIX 7b

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July 28, 1976

Congress of the U. S.
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Attn: Ms. Marcia MacNaughton

Dear Ms. MacNaughton:

Enclosed is a draft of some of my comments on TAS. Hope they are helpful.

Sincerely,

R. Boguslaw
Professor of Sociology

/=3

Working Paper
July 23, 1976
Robert Boguslaw

Comments on the Proposed Computerized Tax Administration System

I. The System Description Book

A. The Selection Method (p. 1-12 ff)

In explaining the technical basis for selection of the TAS, it is stated, "In any problem-solving endeavor, the fundamental method remains constant: first determine, define, and describe the problem; second, consider and evaluate potential solutions in accordance with criteria established by the nature of the problem and of the problem-solver; third, select the most favored solution in accordance with the evaluation; last, acquire and apply the solution."

Comment

The very next sentence in this text begins by saying, "When this method is employed to reach a large automated solution? that is a computer system... ." There is nothing at this point to suggest that the problem-solving endeavor must or should lead to a "large automated solution." Sound "problem-solving practice, "on the contrary would presumably insist upon a detailed consideration of the steps stated in the opening paragraph. The mode of reasoning and expression actually used presupposes the solution, i.e. the development of a new computer system. It raises the question as to whether we are being confronted with what is essentially a prefabricated solution in search of a problem and a constituency rather than sound problem-solving behavior.

I am not suggesting that there has been any deliberate or conscious effort to circumvent appropriate system analysis? design and evaluation techniques. The fact of the matter seems to be that the ground rules under which this analysis was carried out implicitly required the analysts to adopt what is essentially a subsystem or "bureaucratic" perspective. They assumed as **immutable** givens --like the rising and setting of the sun or the rotation of the earth--such matters as the corpus of regulation and law whose penultimate creator is the Congress of the United States. But what this creator has wrought, presumably, it can undo or modify after the fashion of creative creators= With the establishment of the Office of Technology Assessment~ it is possible to regard much of what previously was regarded as unalterable as now being subject to change. A meaningful cost benefit analysis under these conditions would seem to require that Congress be presented with the costs in both money~ time and "justice" of its tax structure. For example, one might well wish to examine the question about the benefits to be derived from a thoroughgoing simplification of the tax code. At what point would simplification obviate the necessity for TAS? What other benefits could be derived from this? Nothing approaching such an assessment seems to have been done (for understandable reasons) in connection with the work leading to TAS. The only alternatives considered are various computer or "hardware" systems. The "selection" method specifically did not include consideration of alternative tax administration systems.

B. Satisfaction of Service Requirements

"The approach taken to select the TAS design has produced a system that fully meets the expressed user needs. ..." (p. 1-13)

It is not at all clear who the "users" of the system are and the sense in which their needs have been met. Here again the difficulty seems to arise from the fact that the perspective used in connection with TAS is one limited to subsystem concerns. The "users" of the system may well include members of Congress, the general public, as well as employees of IRS. Certainly the concerns for individual privacy as well as responsibility for insuring it extends to these "users." There is no indication, however, of the details of the methods used to assess user needs or who has been defined as a "user." Without such a specification none of the following considerations are at all clear: 1) What problem TAS is designed to solve. 2) For whom does the problem constitute a problem. 3) Who has a "need" to know various classes of information. 4) How is invasion of privacy" to be defined, i.e. who does not "need" to know various categories of information. 5) The reasons, i.e. the value premises, which state that a "need" is a "need" and an authorized person is an authorized person. For example, does the need of an incumbent president to win an election constitute a legitimate need? Does the need of an administrator to maximize his budget allocation constitute a legitimate need? If not, there seems to be nothing in the TAS proposal to this point which makes clear the basis for these or contrary value judgments.

User Requirements

"All users desire quick access to taxpayer account data" (p. 2-14)

It is clear from the discussion under this heading that immediate on-line access is not required for many aspects of IRS administration.

What causes the need for immediate access? Is there legislation which could modify or eliminate this need? In cost benefit terms "how much is such immediate access worth?" i.e. what costs would be incurred by a system providing something less than immediate access?

Here again it is apparent that the designers of TAS necessarily used the assumption that the existing structure of tax legislation would remain essentially unchanged or that it would increase in complexity as time went on. No consideration was given to the possibility that previous experience could be reversed--that tax law and associated procedures might be simplified. No cost benefit analysis was prepared to demonstrate the relative costs and benefits of legislative or administrative items contributing to increased complexity and the need for expensive hardware and software.

C. System Analysis and Design

Here one must dispute the concluding statement that "The design is well-supported on technical and cost-benefit foundations, and meets all user requirements." (p. 3-17). As I have previously suggested, the analysis was

conducted from a perspective that did not contemplate possible serious modifications of recent trends in the direction of an ever-increasing complexity of tax law and administrative regulations. A system analysis of the Federal tax system has not been done. A cost-benefit analysis of significant elements in the existing system versus possible alternatives has not been undertaken. This is not to suggest incompetence or ***worse*** on the part of those who have undertaken the analysis and design. It is simply to suggest that the ground rules under which they operated have been changed with the establishment of the Office of Technology Assessment. Hopefully, this instrument of Congress will not feel constrained to the same extent by existing statutes or procedures and will encourage IRS and other agencies to undertake system analyses which are not limit~ to narrow bureaucratic horizons.

II. Privacy Protection

The Privacy Protection Study Commission has analyzed various 'disclosures" ***occurring*** under the present system and recommended "those which should be expressly approved by statute...and which should be terminated" (Report of privacy protection Study commission, p 35).

Comment:

The entire discussion of "disclosure" in this document and elsewhere seems to be predicated upon the existence of a technology providing "absolute" safeguarding of information. Within the framework of such a technology only duly authorized bit-s of information can be released "legally."

A manual file system seems to be the implicit model of technology upon which the superstructure of law relating to disclosure is based. Under a manual system the matter of disclosure versus nondisclosure seems to be fairly clear cut. File clerks and secretaries having access to information can be given more or less specific instructions about disclosure and violations can be punished.

But it may well be the case that the concept of disclosure must be modified in important ways under conditions of large scale computer technology. Any computer system will tend to increase the number of persons who must have technical access to all or significant portions of available information. Replacing the access of typists and file clerks are such technicians as computer programmers and their supervisors, hardware maintenance personnel and their supervisors, console operators, etc. Programming errors or inexactitudes, hardware malfunctioning, etc. can result in more extensive system-wide problems requiring additional access by technicians. When requirements for avoiding "disclosure" are imposed, checkout procedures can be made much more difficult and scrutiny or monitoring by "lay" persons difficult to exercise.

Thus a new range of definitional problems is posed: What is meant by the word "allowed?" Is it "allowed" for a computer programmer to discuss a file with his superiors? Is it "allowed" for a computer engineer or maintenance mechanic to discuss a problem about difficulties in accessing information with his peers or supervisors? How about personnel of a subcontractor who produced some related equipment? It is often difficult to determine whether a specific difficulty is due to a "software" or a "hardware" difficulty. Does it require

an act of Congress to bring in an outsider on these problems? May the programmer or engineer prepare reports about the difficulties they have encountered in the course of their work? May these reports be "checked" by higher officials or others What is allowed?

In connection with all this, experience with safeguarding military information may not be especially relevant. Industrial firms in competition with each other are in some ways analagous to warring military organizations. Industrial espionage, under some variants of TAS, may well make military espionage throughout history look like very small potatoes. One can readily contemplate the prospect of computer firms paying for the privilege of providing technical support to TAS.

III. Other Social and Political Implications

User requirements for TAS are related to the year 1985, "chosen because it is the latest year for which the Service has reliable projections from the Statistics Division on tax administration workload."

The "reliability" of these projections is of course~ dependent uPon the reliability of Congress in refraining from engaging in any significant overhaul of the existing tax structure. Beyond this, however, the year 1985 has its own significance in arriving one year after the era immortalized by George Orwell. One of the most interesting features of this era was the virtual non-existence of privacy as defined by Alan Westin, i.e.~ "The claim of individuals, groups *or* institutions to determine for themselves when, how and to what extent information about them is communicated to others."

About a decade ago, Mr. Westin (in his book Privacy and Freedom) was optimistic about the potentialities of computer technology as the ultimate champion of individual privacy and freedom. For all its problems of control, he said, there is far more possibility of installing and maintaining protection of individual privacy in computer information and intelligence than there is with wiretapping and eavesdropping. "To that extent," he said, "the advanced technology which produced the physical-surveillance devices may make them expendable by a still greater advance in technology, the computer information system. And I wonder what Orwell would have said about that."

In commenting upon this query in a review for the American Sociological Review, I suggested that George might have shook his head sadly, turned and slowly walked away.

The point was that all of the controls in which Mr. Westin apparently placed so much faith would have been perfectly acceptable to Big Brother and his henchmen. What were these controls? They *were 1)* input controls, e.g., limiting those who are allowed to put information into the systems or classifying all information as it arrives according to a sensitivity code from public-record to sensitive, 2) storage controls, e.g., physical safeguards against outsiders tapping in or tampering with stored data. This would include background investigations and normal security controls over computer pe=onnell etc., 3) output controls, e.g., locks preventing access to information without

an appropriate password for the type or class of information sought; automatic recording of all inquiries for information and immediate verification that they come from the proper source, etc.

Control corrupts; absolute control corrupts absolutely. The offices of the Joint Chiefs of Staff, I observed, are scarcely sanctuaries for individual freedom because visitors are screened. The CIA is scarcely a beacon of individual freedom because its files are labeled with varying degrees of security classification. The State Department does not become a stronghold of individual freedom and democracy because its key personnel have had background investigations. And police stations are not fortresses for the defense of individual freedom because only "proper sources" are given access to police records.

I neglected to mention the White House as a specific example, but as. recent events have demonstrated, even that place did not prove to be a sanctuary from the insidious effects of control..

How does one stop the drift toward 1984 in this area? For Mr. Westin, as *a* lawyer and a civil libertarian, the solution was perhaps inescapably posed in terms of legal and ethical remedies. The right of decision over one's own private personality should be defined as a property right "with all the restraints on interference by public and private authorities and due-process guarantees that our law of property has been so skillful in devising." Ethical developments would range from "educating a socially conscious professional group of information keepers to official licensing with high qualifications, as well as the development of a code of ethics for the computer profession."

In a nicer society and a nicer world, I suggested, Mr. Westin's concerns could be safely ignored. In the world with which we are familiar, they seem to begin at the wrong level. It is not simply that we have become disillusioned with White House lawyers and Attorney Generals whose observance of ethical standards for public service and law seem to have been more or less predictably corrupt. Or that the due process guarantees of property law did not help reluctant contributors to campaign funds retain their money. Or that, to judge from recent evidence, the public's property has not been brilliantly protected by lawyers in the highest places.

Beyond this lie some much more fundamental issues. One of these has to do with the norm of privacy itself. Some serious observers have suggested it may be more important, from a moral perspective, to <u>surrender</u> privacy than to protect it.

It is i.nteresti.ng to observe that current preoccupations with the need to protect privacy goes along with public behavior that seems to move i.n the opposite direction. The burgeoning of group psychotherapy and encounter groups, attacks on conventional inhibitions in language, dress and sex behavior can all probably be scored as evidence that what contemporary men and women think they need for "mental health" and even for "freedom" is <u>less</u> rather than more privacy. In the political sphere, powerful public cases have been made

for the thesis that one of the prime sources of aberrant international policy is excessive privacy and secrecy within the federal bureaucracy and within the councils of various economic and political elites.

A sociologist will inevitably be led to ponder over the characteristics of a society which privacy safeguards become necessary.

What is it about American society that makes privacy invasion such a profitable vocation and fascinating avocation? To what extent can privacy itself be used as a mechanism for political and economic power in contemporary society? To what extent, on the other hand, is its invasion a necessary prerequisite for healthy social change? The technological controls listed above in connection with computers would seem to insure privacy primarily for guardians of the status quo--or for technical, economic or political elites and their sponsors. Is more privacy the solution to our problems--especially as we contemplate the aftermath of Watergate? Or would we rather be more concerned with eliminating the need and payoff for both excessive secrecy and privacy invasion on every level of political, social and personal life?

Specifically, with respect to TAS, it seems legitimate to raise the question as to whether TAS (unwittingly) is a system oriented toward increased surveillance of middle class and working class taxpayers~ while having relatively few consequences for corporate and upper class taxpayers. Thus, would more generous "standard" exemptions lead to increased benefits in the form of reduced costs of administration and equipment--to say nothing of eliminating much of the need for privacy among individual taxpayers in the working and middle class?

Does increased computerization of IRS procedures work to the advantage of corporate and other taxpayers who can afford the legal and accounting advice which will enable them to conform~superficially~ to acceptable standards (i.e., to remain below the limits of deviation posed by Discriminant Function scores, etc.)?

In short, from a social and political perspective, the threat posed by TAS is not simply the possibility of increased scrutiny of all taxpayers, but rather the prospects for more effective scrutiny of some and less de facto scrutiny of others.

APPENDIX 7C

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Assoctate Director

HOPE EASTMAN
Associate Director

July 8, 1976

Marcia MacNaughton
Office of Technology Assessment
united States Congress
Washington, D.C. 20510

Dear Marcia:

As per our telephone conversation of last week, I am summarizing my major concerns about the TAS system. First, I must say that I still believe we do not understand precisely what TAS is intended to do. Therefore as a minimum, IRS or OTA must prepare a layman's description of TAS and its intended improvement over existing systems.

We learned in the panel that (1) TAS is intended to expedite (from weeks to micro-seconds) the accessibility of Taxpayer Account Information; and (2) TAS will facilitate the linking of disparate data files maintained on taxpayers in IRS (the related standard forms on the same taxpayers). While both of these objectives are laudable and obviously worthwhile from a management perspective, what impact will these major improvements have upon taxpayers rights?

At least with respect to the first improvement, faster accessibility, TAS is quite similar to NCIC. Therefore it may have a quite subtle impact upon tax law enforcement, as did the NCIC system upon police law enforcement. For example, NCIC and automating rap sheets made possible the use of rap sheets in instantaneous decision making (e.g. in stop and frisk situations), where the opportunity for abuse (as a basis for subsequent arrest or detention) was

greater. Prior to automation, manual arrest record systems could only be used in more benign situations (e.g. setting bail), because of the slow process of access (at least two weeks for FBI rap sheets) .

We don't know enough about tax enforcement to know what similar opportunities for abuse might be presented by faster accessibility to Tax Account Information. For example, the Church Committee pointed up the problem with Special Enforcement Programs (against ideological organizations and individuals as well as against organized crime figures) . TAS may facilitate those programs of so-called "unbalanced" tax enforcement. Perhaps this system might encourage IRS auditors to run so-called compliance checks, either on enemies (ideological, political, organized crime or whoever) where the cumbersome manual system discourages such requests.

OTA must talk to experts in tax enforcement (former assistant commissioners for Audit and Compliance and IRS investigators knowledgahle about IRS organized crime programs) to understand the implications of faster accessibility. We should also have a complete understanding of precisely what data elements will be automated, in particular which elements in matching or interlocking files will be automated. For example, will information (even in public files) on exempt organizations, including contributors, be audited? I certainly am not deterred by arguments that tax exempt organization files are public records. After all, so are arrest records.

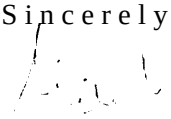
There is a real vacuum in the literature and research on IRS pertaining to all of these questions. For example, the report by the Administrative Conference focuses on the problem of termination and jeopardy assessments and other forms of action taken by IRS against taxpayers after they have been selected out for audit. Other materials that we have looked at have focused on the problems of collection of information in automated data banks like IGRS of information that does not come from tax forms but other sources, e.g. informants.

Neither of these problems is the focus of my concern with TAS. My primary concern with TAS is that it will facilitate the selection out of individuals for compliance checks and audits which may in the long run result in jeopardy assessments or other forms of action against taxpayers where tax violations are uncovered. The problem with TAS then, is that it may be used to facilitate so-called "unbalanced" tax enforcement and greater scrutiny of certain classes of taxpayers. This problem was only touched on by the Church Committee and obviously needs a great deal of further study. The problem of collecting and automating information which does not come from tax forms can easily be dealt with via prohibitions on the collection of constitutionally protected information such as information related to political activities, speech

or petition for redress of grievances. Obviously this is a fertile ground which must be researched by OTA or some organization before the technological and civil liberties impact of TAS can be assessed.

These are only a few of my concerns recorded off the top of my head. They are my personal concerns and do not represent the position of the ACLU. Furthermore, I could not even recommend a position to Hope or the ACLU until these questions have been explored at greater depth. I would think that the panel must meet at least one more time to consider issues such as these on its own, perhaps without IRS people. At that time we could consider further a proposal to OTA for technological assessment.

Sincerely,



Mark Gitenstein

MG:cb

APPENDIX 7d
PROPOSED PRIVACY AND SECURITY REVIEW METHODOLOGY FOR EXAMINING THE IRS PROPOSED TAX ADMINISTRATION SYSTEM

DONN **B. PARKER**
STANFORD RESEARCH INSTITUTE
JUNE 1976

A scenario analysis approach is suggestid as a means for a small group of experts with limited resources and time to evaluate a large, proposed computer system regarding privacy and security. The purpose is to determine the adequacy of a proposed system and the organization developing and using it to assure acceptably low levels of risks through establishment of cost effective controls and safeguards. Anticipated threats include disasters, errors and omissions and intentionally caused losses.

METHOD

1. Identify assets and victims subject to loss. (See enclosed Figure 1)

2. Identify threats using a taxonomy suggested in Figure 2.

3. Develop threat and loss scenarios in the form of a collection of narratives, each encompassing a broad range of related incidents. (See enclosed Figures 3 and 4)

   - System life cycles phases covered:
     - Design
     - Development
     - Test/acceptance
     - Implementation
     - Operation/maintenance/update
   - Use aids such as published checklists, NBS publications and results of computer abuse studies (see Figure 5) including disinters, errors and omissions, information and property fraud and theft, financial fraud and theft and unauthorized use of services.

4. Present the threat scenarios to IRS and request analyses and responses including descriptions of controls and safeguards and resulting risk reductions.

5. Evaluate IRS responses for adequacy and cost and risk effectiveness. A list of principles such as in Figure 6 can be applied to evaluate controls and safeguards.

6. Rank and classify risks and protection in the following categories:

   a. High risk — Inadequate protection
   b. Low risk — Inadequate protection
   c. High risk — Adequate protection
   d. Low risk — Adequate protection

   Publish recommendations.

JUSTIFICATION AND BENEFITS

This method of evaluation minimizes the work effort of a panel of experts and puts the burden on IRS to demonstrate adequacy of the proposed system relative to the panel's challenges. (The usual process is the reverse, requiring the panel to study massive amounts of documentation.)

The scenario method creates easily understood descriptions of potential problems in an interesting and dramatic fashion.

Although a comprehensive analysis of all weaknesses and probIems is not guaranteed by this method, no other method using limited resources can achieve this goal either. In addition, this method provides a means of establishing a confidence level of the IRS staff capability, awareness and sensitivity in dealing with the total problem of privacy and security.

APPENDIX 7e

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HOPE EASTMAN
Associate Director

November 9, 1976

Ms. Marsha MacNaughton
Office of Technology Assessment
Congress of the United States
Washington, D. C. 20510

Dear Ms. MacNaughton:

I have reviewed the draft of your report for the Office of Technology Assessment on the proposed Tax Administration System (TAS) of the Internal Revenue Service. While the report raises many important technological and social questions about the system, I do not believe that it recommends strongly enough that no Congressional approval or financing be given to this system without extensive public hearings and debate.

The TAS is an enormous and costly system which will computerize highly personal information on the entire citizenry, make it instantly retrievable from thousands of remote terminals? and provide an attractive data base for linkage with other government systems. Inevitably it will be a prototype for future computerization of government records on individuals.

The report properly identifies those questions of public importance which are raised by the technology of the system. Both the new Administration and the Congress need to examine them very closely before making any decisions. Without attempting to comment or restate the basic social questions which must be resolved first, I would like to make one observation which I think has not been adequately dealt with in the draft report. If there is a decision to proceed with the system in the face of the increased potential for invasion of privacy by government and others, then a much tougher set of safeguards and

penalties must be required. Special attention must be paid to the problem of official abuse of tax information for political purposes.

Decentralization of the records exacerbates this problem. It will be much easier for government officials, federal, state and local, to develop the cozy relationships on the local level which will make possible abuse of tax return information. There is also highly increased potential for improper private access to this tax return information. In addition to an expanded group of criminal and civil penalties, it needs to be made clear that civil remedies will be available to anyone injured by abuse of information. The government should be obliged to notify victims when evidence of abuse comes to its attention. To enforce that obligation and to deter those with incentive to seek improper access and use, an obligation should be placed on any employee with access to information to report to an agency outside the IRS improper access, or requests therefor~made to an employee or to others.

I am hopeful that the publication of this report will be the first step in a careful public debate on this issue. I am happy to have had a chance to participate.

Sincerely yours,

Associate Director

HE: meg

APPENDIX 7f

AMERICAN BANKERS ASSOCIATION

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GENERAL COUNSEL AND SECRETARY

Witllivn H. Smith
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November 11, 1976

Marcia MacNaughton
Office of Technological Assessment
Congress of the United States
Washington, D. C. 20510

Dear Marcia:

In a way I am disappointed that more time is not available to Study and comment on the working COPY of the draft OTA report on the proposed Tax Administration SY Stern of the Internal Revenue Service. On the other hand, I am really not sure that I might productively make use of any additional time since I doubt that line-for-line ~ page -by- page comments and reactions would be Very helpful to OTA's analysis of responses and its obligation to present to the Congressional Boa r~ the substance of this undertaking to date.

I have been over the material twice. In a first reading I concluded that the report is terribly biased against any reasonably prompt approval and installation of the TAS system as it has been proposed by the Commissioner of Internal Revenue. However, 1 recognize that I also have a bias at work and decided that it would not be fair for me to speak from that bias without a second reading.

I have now completed that Second reading and I acknowledge that the report does at least point to most, if not all, of the considerations that should be taken into account in deciding an important question of this **kind.** At the same time, and I think without reflecting my bias in any way, I believe the report is seriously out of balance in that considerations that favor adoption of a system that will make tax administration more effective are treated almost perfunctorily. On the other hand, considerations such as security, privacy, individual rights, confidentiality, equity, equal protection of the laws, etc. , are examined in substantial detail and in a way that suggests that each must be dealt with in a most complete and reassuring way before the Internal Revenue Service might be authorized to arrange for the procurement of the equipment necessary to place the system in use. I

appreciate that the tenor, the tone and the direction of the draft OTA report may in substantial measure reflect the charge from the Chairman of the House Ways and Means Committee and the Subcommittee on Oversight; in short, one can interpret that charge to mean that TAS by its very nature calls for safeguards that will prevent it from becoming a system of harrassment, surveillance and political manipulation. I think this is regrettable because I sincerely believe that more is being made out of this problem than is really necessary, and because the charge must be based on apprehension rather than hard past evidence. In that same way, the draft report tends to miror a Vague and unsubstantiated apprehension.

Although the draft report does not try to settle the question with an unequivocal recommendation, it is pretty clear that a hearing is thought to be the best way to get at all of the issues which have been raised so that they can be disposed of one way or another. I see no need for a hearing and submit that it would be sheer 'overkill' to use such a forum to get at the problem. First, the system is adequately described and we all know what it is designed to do and how it will be used. Second, safeguards exist today and I have not yet seen any evidence that would suggest that more need to be imposed upon this system. Finally, there ought to be more r e cognition of the enormous responsibility carried by the Commissioner in processing hundreds of millions of tax returns annually, and his need to be allowed to upgrade today's system in the absence of clear- cut evidence ,showing a need to slow him down any longer.

I appreciate that the report acknowledges the point I am about to make, but perhaps not in the way I intend to make it. I believe -- indeed I know -- that the Congress and the Office of Technological Assessment would not even be addressing this question but for the state of the technology when the current automated system used by IRS was installed 15 years ago. Parenthetically, let me observe that the report notes that TAS is a "mere automation" of today's system; nothing could be further from the actual fact. It will be difficult for anyone to point to a more highly automated business /accounting system than that which the Service has been using for the past 15 years.

The basic system was designed in 1958 and it could have accomodated a number of technological and equipment configurations. For a variety of reasons that I will be happy to go into at a later time if it should be necessary, the de signers in 1958- 1960 preferred and could have made out a strong case for the use of a random system. Unfortunately, the state of the technology at that time simply Would not support this approach and it was ne c ess a r y to adopt the ordered s e quentials batch pro c ess ing system that the Service continues use today= This latter system has many inefficienciess and handicaps, but it could continue to serve the needs of the Tax Administrator for an indeterminate period. However, why should one continue to drive a one -horse shay? The answer to this question is obvious. First, the payoff for a more efficient random system is stificiently promising that on a cost effectiveness basis I assume that much of the expense attached to changeover and equipment acquisition will be recovered in time. To the extent that is not the case, this is merely an illustration of capital cos ts that must be incurred to enable tie Commissione r to keep pace with **enormous workloads.**

Also, when the IRS proposal for TAS is stripped of all of its "bells and whist les, it merely represents a conversion from a batch processing system to a random system. unfortunately, 'the Executive Branch is sometimes inclined to dramatize out of all proportion that which will be achieved by new proposals. In a way this is understandable since it is yery difficult otherwise for a proposition with high start-up costs to survive the budgetary process -- particularly when, as in fiis case, we are talking about the expenditure of $750 million. This is unfortunate because if the system is ess entially a mere conversion of today's array of taxpayer records from one storage medium to another with an enhanced capability for retrieval, posting and use of the updated record -- and I submit that is the case -- then all the issues bound up in privacy confidentiality~ security, etc. , etc. , are quest ions that should be addressed **out regard to the proposal to adopt the TA S system. And I submit that to the best of my knowledge the evidence is simply not available fiat today's system has been so abused so as to call for that kind of investigation.

I acknowledge that the Internal Revenue Service is frequently in the press. I acknowledge that the agency has been guilty of excesses and abuses, but I am far from convinced that even these have occurred in the magnitude often sugge steal, and unfortunately the resulting impression too often cove rs up the very fine Work done by this agency uncle r the most trying circumstances. However, the important thing is that there does not seem to be any evidence that today's automated system was the source of any breach of privacy, confidentiality, security, or whatever. Does the enhanced capability of TAS en.large the possibility of such abuses in any significant way? I think not.

why is this? In my opinion it is because the processing system is so set apart from the enforcement operations of the Internal Revenue Service. The people who staff the IRS Service Centers and the Computer Center have a different mind set than those charged with the enforcement of a very complex taxing statute. There is no inclination on the part of processing personnel to play games. These individuals recognize that they are simply char ged with a responsibility to extract data from tax returns; r e co rd it in a machine-readable form so that it is readily convertible to magnetic tape from which a file of taxpayer information may be established, updated, and used to satisfy a variety of what are really very mundane tax administration needs! The simply truth is that this is a mere accounting file and it is the fulfillment of the accounting function that is its principal purpose.

Despite any of this, an important safeguard against abuse exists already. Indeed, the Tax Reform Act of 1976 may very well supply all the safeguards necessary to assure the privacy and the confidentiality of data extract ed from tax returns today or uncle r the proposed TAS s y stem. It is my opinion that the current files and those that would be c reatd uncle r TAS are covered by the definition of "Tax Return Information" as this is used in the Tax Reform Act of 1976. Thus, disclosure of any information will be seriously dealt with. Indeed, the Ways and Means Committee -- the very committee that has asked for an evaluation of the TAS system -- has upgraded the crime of disclosure from misdemeanor to felony and has upgraded the penalties from $1, 000 to $5, 000 and one year in jail to five years in jail. I believe that the possibility of actionable disclosure has been effectively eliminated by the Congress.

However, I suppose one can speculate that in the absence of other safe guards the re could be unintended disclosure that occurs simply because of the nature of TAS and the way that s y stem would work. I have thought about this and without reaching -- indeed perhaps over r caching -- I simply have not been able to conceive of unintended breaches of security or privacy or confidentiality that might occur. I have no objection to setting other safeguards in place in order to guard against abuses of the kind that obviously are of concern in the draft OTA report. However, I must confess that I do not know what practical safeguards there are, but if there are any, then I hope that they can be set down quickly and imposed in a way that will not overburden the system and render it less effective.

The draft report also makes the point that "Oversight" is an important element that deserves attention, and I agree with this. However, I think the machinery is already available. It has been used before by the Joint Committee on Internal Revenue Taxation and its use has been reinforced by some of the provisions of the Tax Reform Act of 1976. The Joint Committee on Internal Revenue Taxation is authorized to use the General Accounting Office for oversight and for investigation of any irregularities or abuses that may come to its attention. Indeed, it may do this without evidence of irregularities or abuses -- simply to assure itself that tax administration is functioning in the way intended by the legislative branch of the government. Thus, I think there is an adequate provision for oversight and if properly used it should also put to rest many of the concerns which have been expressed about the issues taken Up in the d r aft report.

In closing, I hope that this letter will enable those who have the concerns expressed in the draft report to appreciate that they may be out of all proportion to past evidence and to the prospect of excesses, abuses, violations, accidental occurrences, or whatever in the future. Let me als o note that the Section of Taxation of the American Bar Association is inte re steal in this matter. Indeed, I feel I can safely say that the Section would appreciate the opportunity to be brought into things and to express its views with respect to the issues uncle r con side ration by the Office of Technological Assessment on behalf of the Committee on Ways and Means of the House of Representatives and the Subcommittee on Oversight of that committee. For that reason, I propose to send a copy of this letter to inte re steal officials of the Section of Taxation.

I appreciate very much the opportunist y that you have afforded me to comment on OTA's draft report.

Sincerely,

Bill Smith

William H. Smith

cc: Messrs. Harris, Pennell, Lefevre, Liles, Asbill, Delaney, Corey

APPENDIX 7g

March 8, 1977

Ms. Marcia MacNaughton
Office of Technology Assessment
Congress of the United States
Washington, D.C. 20510

Dear Marcia:

Having reviewed the Draft of the OTA Report "Investigation of a Request to Assess the IRS Tax Administration System," I would comment that it is a precedent-setting report. I am aware of no other report which has addressed such a conglomerate of issues of societal, public and governmental import associated with a highly complex automated information system as epitomized by the IRS TAS.

The typical review or audit report contents itself with the more tangible but less disquieting questions of physical security, size of files, costs of operation and the like. What we fail to recognize is that we have little skill or experience in even asking the appropriate questions to enable an adequate technology assessment to be made of a computerized record-keeping network which is handling information of national significance. Even more importantly, the IRS TAS is handling information of significance to almost **every** adult U.S. citizen.

OTA has made a giant step forward in its willingness to tackle a real technological unknown, even though the Draft Report may seem to be a very tiny step in the race towards government accountability. As a member of the Panel, I was disappointed that OTA'S resources only permitted the holding of one meeting. It is not surprising that we were unable to ask but a few of the right questions: certainly, IRS should not be chastized for not providjng all hoped-for responses under such circumstances.

This Draft Report which, unfortunately, was able to provide few answers should not exemplify the normal end of a dialogue between Congress and Executive Agencies in determining and assessing government accountability in matters of deep concern to the public as individuals and to the public at large.

The key issue in such questions of accountability involving computer systems of individual records or computer systems for funds disbursing or near real time control functions is the issue of RISK.

We need to ask ourselves: What is the level of risk we can tolerate with this system? What kinds of risk are we introducing with this system? How do the risks match the gains? and, Who is having to accept the risks as opposed to benefiting from the gains? When those who must accept the risks are not those who obtain the benefit, then the problems of accountability are certainly exacerbated.

The issues raised in the OTA Report highlight some of the more important risks. The open question is who will determine what is an acceptable level of risk. I personally believe that Congress has assigned that responsibility to itself in the Privacy Act and in recent Commiittee actions.

The IRS TAS is just one of the many systems for which an acceptable level of risk must be determined. OTA has pointed out to Congress the difficulty of the task Congress has assigned itself. The OTA Report properly alerts Congress and the public to the danger of leaving the issue of acceptable levels of risk unanswered.

I was very glad to participate in this important, but unfinished exercise. 1 would like to endorse OTA'S entry into this area of technology assessment typified by uncertainties, unknowns and indeterminables.

Sincerely,

Ruth M. Davis, Ph.D.
Director
Institute for Computer
Sciences and Technology

APPENDIX 7g – WORKING PAPER, AUGUST 1976
Dr. RUTH DAVIS, DIRECTOR INSTITUTE FOR COMPUTER SCIENCES AND TECHNOLOGY, NATIONAL BUREAU OF STANDARDS, U.s Owr. OF COMMERCE

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I. General Comments/Suggestions on Scope and Partitioning of OTA's Assessment of TAS

A. Anyone can get lqrwlesdy mddlled in atmessilrg 'a bmna.lfźed system uuch as **T'AS** for accomplishing prescribed fumctiams dess a clear separation is made ~ÿ~ the several areas of concern, for exarrqikx

CONCERNS ABOUT:

1. The legislated or chartered miissicm of the ~ in #h"i.dh tlw fmmallbd system 'is embedded; m this awe, Ithe IRS.

   Here, one appropriately .agksqu.esticmsztb out:

   - The appropriateness of the miission m- b - ~=wessed reeds and feam of the public.
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   - Means of identifying the scope md.c!imnges tmfie scope of the ni.ki&m.
   - Means and agents for accountability to ~-e=, the 'l%seidmrt, A & @lie in mission accornplishwmt. This ticludes IWtilaocountdxii.
   - Etc.

2. **Identifiable fears and abuses of individuals and organizations resulting from carrying out the IRS mission.**

3. The manner in which the means for carrying att me IRS missinn mmE4B _ legislated or executive requirements, e.g., b - Act of 1974, the %ham&ne" Act, etc.

4. The ability of the organization, ~~, to =~ci= ~equate control to mmme that it can meet its legislated or asaigned xeqmnsihility: llddkmwy, ~ must be kble b maintain continuity of operati~~. 'H=, 'one ~~ t@c~#@= that qgciing aiwessments, task groups established to ~@ IMId -e co~erns, etc., din d * the right to undermine or interfere - Il#llS managernent of its assigned functicms until or unless alleged wrongs are wfiti ~~ements for chnge pF_y authorized. The American legal truism d

   "A person is innocent until proven guilty"

   presumably is equally applicable to corpmazte pmwams ~mqganizaticms.

5. The formalized system, which is the target of h aa=mmant, in this H, **TAS.**

   Here, one appropriately asks questions such as:

   - Do the prescribed ~ystem functions match directly with pozbicw of the legislated IRS mission?

- Does TAS improve or degrade IRS' need to be accountable for its performance to Congress, the President, and the public (including fiscal accountability)?
- What are the known threats to and Vulnerabilities of TAS?
- Does TAS increase — or decrease — the means and potential for allaying identifiable fears and abuses of individuals and organizations?
- What alternatives or options to TAS exist (and have been assessed) as means for IRS to carry out its responsibility and to ensure continuity of operations?
- The specific manner in which the formalized system, e.g., TAS meets specific requirements, e.g., the Privacy Act of 1974.
- Where are the points of accountability and responsibility within IRS for the various aspects of TAS performance, propriety and the like?

B. I would suggest that OTA'S assessment of TAS focus on items 1.A.2 and 5, i.e.,

"2. Identifiable fears and abuses of individuals and organizations resulting from carrying out the IRS mission," and

6 5. The formalized system TAS as it is embedded in the IRS management structure. "

In order to permit this focused attention to yield useful results, the context in which the assessment is being made needs to be carefully described and delineated, i.e.,

"I.A.1. The legislated or chartered mission of IRS which TAS serves, and concerns about this mission.

1.A.3. The manner in which IRS meets specific requirements relevant to its mission and to TAS'S part in carrying out this mission.

LA.4. The need for IRS to retain its ability to function properly while assessments are underway. This includes recognition — or a decision not to recognize — that IRS (and TAS) will be "presumed innocent until proven guilty."

II. Specific Actions Suggested for OTA'S TAS Assessments Activities

A. I would suggest that OTA can, as a result of its June 28, 1976 meeting, provide an initial report citing:

1. Identified fears and abuses — existing and potential — associated with TAS and with the IRS mission.

   Examples as mentioned at the June 28th meeting include: overlong retention of records, presupposition of the goodness and immutability of tax laws, inability of IRS or TAS to resist questionable requests . . .

2. Identifiable threats to and vulnerabilities of TAS matched against (a) public fears and abuses, and (b) specific requirements such as the Privacy Act.

3. Pros and cons of legislation aimed just at TAS as contrasted to legislation directed to IRS' missions and responsibilities. Examples of when legislation would and would not help can be given.

4. The context in which the OTA assessment is being considered, see I.B. above. A clear boundary on OTA'S effort should be described emphasizing subjects with which OTA will not deal, e.g., internal IRS administrative matters, generally, the appropriateness of the present legislated IRS mission, etc., and

5. The specific questions which OTA will address within its bounded assessment (it is not clear to me yet that OTA has properly bounded its assessment).

B. OTA can (and I understand has done so with an initial set) provide a set of questions to IRS for response which will be necessary for OTA'S continuing assessment. These questions should, of course, take into account the information in the draft GAO report on IRS.

It appears there are legitimate questions to which only IRS can provide the needed responses. These include:

1. Specific statements regarding procedures for meeting Privacy Act requirements.
2. Procedures for linkage and prevention of linkage between fields in TAS files.
3. Procedures for recording accesses to file information and for refusing access to file information.
4. Vulnerabilities due to decentralization of functions within TAS.
5. A formalized cross-walk between information items in files and the legislated requirements for their collection, access and retention.