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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

GENERAL GOVERNMENT DIVISION

B-197453

JANUARY 24, 1980

The Honorable Jerome Kurtz  
Commissioner of Internal Revenue *AGC00004*  
Department of the Treasury

Subject: The Internal Revenue Service Could  
Make Better Use of Computer Audit  
Specialists (GGD-80-33)

Dear Mr. Kurtz:

We have completed a survey of the Internal Revenue Service's (IRS') computer assisted audit program. Our objectives were to evaluate the management direction and control of the program and to assess whether it effectively assists the Service in auditing returns of taxpayers using automated accounting systems.

IRS is making good use of computer auditors in examining returns of large corporate taxpayers, but the program has not reached its full potential. Management needs to assure that (1) computer audit specialists are used more extensively in other compliance programs, (2) adequate computer hardware is provided to support the program, and (3) better lines of interregional communication are established among computer audit specialists and program managers.

As you know, the computer assisted audit program was initiated several years ago when a selected number of revenue agents were trained in computer systems design and programming. These agents--referred to as computer audit specialists--were tasked with analyzing and evaluating taxpayers' automated accounting systems and initiating agreements with them to retain financial records on magnetic tape for IRS audit. Further, the computer audit specialists assist in the audit effort by performing computerized data analysis and retrieval as requested by case managers and examining agents.

National Office support in the form of training and program guidelines is provided by the Examination Division of the Office of the Assistant Commissioner for Compliance.

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Our survey was performed at the National Office in Washington, D.C., and at regional and selected district offices in the Mid-Atlantic, Southwest, and Western regions. We reviewed national and regional policies and procedures for carrying out the computer assisted audit program. We discussed various aspects of the program with assistant regional commissioners, division and branch chiefs, group heads, large case managers, and a number of computer audit specialists.

COMPUTER ASSISTED AUDIT PROGRAM  
HAS IMPROVED THE COORDINATED EXAMI-  
NATION PROGRAM

Today, 152 revenue agents have been trained as computer audit specialists. Record retention agreements are in effect with about 3,600 taxpayers. This includes almost 1,300 of the large corporations in the coordinated examination program. Computer audit specialist involvement is mandatory in all examinations in which record retention agreements are in effect.

Service officials we interviewed unanimously agreed that the computer assisted audit program has contributed significantly to the quality and scope of examinations of large taxpayers with computerized financial systems. We noted numerous instances where case managers cited savings of from 5 to 250 staff days per audit as a result of computer audit specialist efforts. The staff day savings represent time that would have been required to manually do the analyses performed by the computer audit specialist. In many of these instances, it is unlikely that the work would have been done manually because of the high cost. Routine auditing techniques, such as stratification of general ledger accounts, selection of detailed transactions for review, and analysis of vendor payments, can be done in a matter of hours using the computer. In large corporations, it used to take revenue agents weeks to manually complete these tasks. The Service has recently introduced statistical sampling into the examination program, and computer audit specialists are heavily involved in identifying situations where this auditing technique can be applied.

Management data is not available to measure the costs and related benefits of the program, but IRS officials that we spoke to believe that the savings in resources and improved audit quality far outweigh program costs. This is evidenced by the fact that the Service plans to increase the number of computer audit specialists to 300 by 1981.

OTHER COMPLIANCE PROGRAMS COULD  
BENEFIT FROM COMPUTER AUDIT TECHNIQUES

Computer auditing techniques have also been used effectively--but limitedly--in examinations of other than large corporate taxpayers. National Office guidelines call for using computer applications to the fullest extent possible in examinations of tax shelters and corporate slush funds, in information gathering projects directed toward tax avoidance or tax evasion schemes, and other compliance programs. We found, however, that little National Office guidance exists on when and how to use these techniques and little monitoring is done to determine the extent of their use. As a result, computer audit specialists were more heavily engaged in these programs in certain regions than in others.

As discussed above, computer audit techniques are cost-effective tools for addressing compliance problems of concern to IRS and the Congress such as tax shelters and the cash economy. For example:

- A computer application was developed to track the financial impact of partnership returns on individual partners. In one instance, there were over 9,000 partners. An individual could be involved in as many as five different partnerships. In the event of adjustment to partnership income, the computer program automatically computed the applicable adjustment for each partner, a process which would be costly to do manually.
  
- Information was accumulated and a computer program developed that estimated the amount of tip income received by service employees at a number of hotels

and restaurants in a large resort area. A comparison of estimates with income reported by the employees uncovered a significant amount of unreported income. In its recent report on the underground economy, IRS pointed out that unreported tip income was a serious compliance problem and that additional investigative measures would be devoted to it.

--Computer audit techniques were used to unravel extremely complex accounting transactions over a 6-year period in a fraud related case. A holding company filed about 1,000 subsidiary returns annually and distributed overhead expenses from 21 different accounts. The computer audit specialist automated the mass of data and, using the computer, redistributed the expenses. The case manager told us that the taxpayer was subsequently charged with fraud, and this case could not have been developed without using computer audit techniques. He estimated that the district would not have had enough people to do the work manually.

National Office officials informed us that the regions have been given a free hand in promoting the use of computer audit specialists outside the large case program, and that Regional Commissioners determine the number of staff required for the program. As a result, there appears to be strong management emphasis in some regions to expand the computer assisted audit program. In other regions, though, revenue agents and/or computer audit specialists decide whether to develop and use applications outside of the large case program.

Overall information was not available on the number and types of computer audit applications used in the various compliance programs in each IRS region. The following, however, shows for the first half of fiscal year 1979 the disparity among regions in the use of computer auditors' time in compliance programs other than the program for large corporate taxpayers.

<u>Region</u>	<u>Number of computer auditors assigned</u>	<u>Percent of time spent on other compliance programs</u> (note a)
North Atlantic	24	16
Mid-Atlantic	13	13
Southeast	15	14
Central	14	21
Midwest	15	19
Southwest	22	14
Western	26	42

a/ This represents direct audit time spent on returns of smaller corporations, partnerships, and other compliance programs.

As shown in the above table, the Western Region, which has 161 large corporate taxpayers under its jurisdiction, used 42 percent of its computer audit specialist staff time on examinations of other than large corporate taxpayers. The Mid-Atlantic Region, on the other hand, which has 202 large corporations within its regional boundaries, used only 13 percent of the computer audit specialist staff time on such examinations.

There was a strong contrast in management emphasis between the Western and Mid-Atlantic regions on the use of computer audit specialists outside the large case program. In our discussions with the Assistant Western Regional Commissioner for Examination, he spoke enthusiastically about the benefits that computer audit specialists can bring to all compliance programs. Similarly, the Western Region program directives stressed utilization of computer audit specialists in other than the large case program. In contrast, the Mid-Atlantic program directives focus on large corporate entities using automated accounting systems.

In view of the potential for computer audit techniques to address critical compliance problems facing IRS, program managers at the national and regional levels should put increased emphasis on using these techniques in all compliance programs.

NEED FOR ADEQUATE ADP SUPPORT  
FOR COMPUTER ASSISTED AUDIT PROGRAM

Maximum benefits of the computer assisted audit program will not be realized until adequate hardware support is provided for every region.

Taxpayers provide most of the hardware support for computer audit specialist efforts in the large case program. In the event taxpayers' hardware cannot be used, the Office of the Assistant Regional Commissioner (Examination) is responsible for acquiring computer time from commercial sources or other Government agencies. Over the years the regions have acquired a variety of computer hardware and support services; considerable disparity exists, however, in the adequacy and accessibility of hardware support among the regions.

In one region we visited, for example, the computer audit specialists had immediate access through remote job entry terminals to a large computer system of another Federal agency. One computer audit specialist in that region was providing assistance on 64 different cases--62 of which were other than large corporations. In another region only one small keyboard terminal was available to support the entire computer assisted audit program. The bulk of the computer audit specialist effort in the latter region was in support of the large case program, and taxpayers' hardware was the primary means of support.

IRS studies conducted in September 1976 and March 1978 recognized the wide disparity in computer support among regions and addressed the software and hardware requirements of the computer assisted audit program on a nationwide basis. The 1976 study recognized that hardware would have to be acquired before software needs could be met. The 1978 study recommended that equipment requirements be met through time-sharing systems, and that remote job entry terminals be acquired for 8 district offices and 37 outlying posts of duty at an annual cost of \$644,000.

In April 1979, the ADP Policy/Resource Board questioned whether (1) remote job entry terminals at posts of duty which have only one computer audit specialist were needed,

(2) the costs of keypunch equipment and personnel to operate them at district offices and posts of duty were considered, and (3) the cost of personnel to operate the remote terminal equipment at outlying posts of duty was considered. The acquisition of terminal equipment was delayed pending development of additional cost information.

We share the concern of the ADP Policy/Resource Board that better justification is needed. Our review of the March 1978 study showed that the benefits of having remote job entry terminals at outlying posts of duty with only one computer audit specialist were not specifically addressed. We agree that the cost of keypunch equipment should be considered. We question whether the cost of personnel to operate the keypunch and remote job entry equipment should be included because such equipment is typically operated by the computer audit specialists themselves. At the completion of our survey, a decision had not been reached on this acquisition, although the Board agreed in December 1979 to acquire computer equipment for the larger offices.

In view of potential program expansion that can be realized with suitable hardware, IRS should promptly make the necessary analyses to determine cost effective hardware requirements for the computer assisted audit program nationwide and initiate the actions necessary to acquire it.

NEED TO BETTER COORDINATE AND CONTROL  
DEVELOPMENT AND USE OF COMPUTER AUDIT  
TECHNIQUES

The National Office should foster more effective communication among regional computer audit specialists to (1) encourage the exchange of information and ideas on innovative approaches to solving examination problems and (2) preclude duplicate development and use of computer applications. The National Office is responsible for researching technical and innovative aspects of ADP examinations, planning and developing computer programs for nationwide use, and monitoring the overall effectiveness of the program.

The National Office relies heavily on the field to develop innovative audit techniques. It initiated a computer application digest several years ago to facilitate the exchange of information among program participants. Only four issues of the digest have been published to date, and a number of computer audit specialists told us that it is not current and therefore not very useful.

Information provided us by two regions indicates that considerable effort was expended to develop computer applications which estimated tip income by service employees in hotels and restaurants. Programs for listing checks by check number, date, payee, etc., doing net worth analyses, and computing employment taxes were also available in the three regions we visited.

Computer audit specialists should be encouraged to use their ingenuity in developing computer techniques to solve examination problems at the district level. We support the National Office efforts to work through regional and district computer audit specialists to achieve program goals. However, development of these techniques can be time-consuming and expensive. The National Office should more closely monitor the program to make certain that computer applications having nationwide use are identified and made available to all regions and that work in developing programs and techniques is not duplicated. As shown on pages 3 and 4, computer audit techniques can be powerful tools for efficiently addressing compliance problems of concern to IRS and the Congress.

#### CONCLUSIONS AND RECOMMENDATIONS

The computer assisted audit program has contributed significantly to the quality and scope of audits of returns filed by large corporate taxpayers. Computer audit techniques can be used effectively in other compliance programs, such as tax shelters and the cash economy. Regional offices need to be more supportive of the program to assure that computer audit specialists are consulted and/or used in all examinations requiring data analysis. The National Office needs to more aggressively manage the program to assure computer techniques that have nationwide application are made available and used.

Proper application of these techniques should free up investigative resources that are currently performing manual reviews in compliance programs. These resources could be redistributed to programs where computer audit techniques are unsuitable.

To further increase the effectiveness of the computer assisted audit program, we recommend that you, as Commissioner of IRS:

- Require that National and Regional program managers establish a formal mechanism to consider the use of computer audit techniques in all compliance programs and assure that they are used where applicable.
- Require that the necessary analyses be made promptly to specifically define cost effective hardware support for the computer assisted audit program and initiate its acquisition.
- Establish procedures to better coordinate and control duplicate development of computer applications and ensure service-wide use of standard applications when appropriate. At a minimum, the National Office should monitor and evaluate the use of computer audit techniques in all compliance programs, establish an inventory of techniques and assure that all regions are advised of them, and recommend to the regions those techniques which should be adopted.

AGENCY COMMENTS AND  
OUR EVALUATION

We discussed these matters with the Assistant Commissioner, Compliance; the Deputy Assistant Commissioner, Data Services; and the Directors, Examination and Criminal Investigation Divisions. These officials generally agreed with our observations, although the Director, Criminal Investigation Division, stated that he believed his division was receiving adequate ADP support from IRS regional service centers. However, he advised us that he had recently initiated a study to determine the division's ADP support needs in the coming years.

The Assistant Commissioner, Compliance, told us that he supports the use of computer audit specialists in all compliance programs, and he would see that the extent of their use outside the large case program would be examined as part of the National Office Review Program. Also, the Assistant Commissioner supports the acquisition of remote terminals for use by computer audit specialists, and he expressed confidence that they have sufficient support to win approval of the ADP Policy/Resource Board and that he would continue to pursue this goal.

The Deputy Assistant Commissioner, Data Services, told us that he recognizes the need for adequate ADP support but the acquisition of remote terminals must be justified from a cost/benefit standpoint.

We believe the IRS officials' comments are generally responsive to our concerns and, if followed through with a plan of action consistent with our recommendations, should help alleviate the problems we identified.

This report contains recommendations to you on page 9. As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

Sincerely yours,



Allen R. Voss  
Director